CITY OF AUSTIN, TEXAS
WATERSHED PROTECTION DEPARTMENT

CIP PROJECT No. 10878.003

WALLER CREEK INLET FACILITY
CATENARY SCREEN PILOT
JUNE 2021

MAYOR — STEVE ADLER

COUNCIL MEMBERS

MAYOR PRO TEM	NATASHA HARPER-MADISON		
DISTRICT 1	NATASHA HARPER-MADISON	DISTRICT 6	MACKENZIE KELLY
DISTRICT 2	VANESSA FUENTES	DISTRICT 7	LESLIE POOL
DISTRICT 3	SABINO RENTERIA	DISTRICT 8	PAIGE ELLIS
DISTRICT 4	GREGORIO CASAR	DISTRICT 9	KATHIE TOVO
DISTRICT 5	ANN KITCHEN	DISTRICT 10	ALISON ALTER

CITY MANAGER: SPENCER CRONK

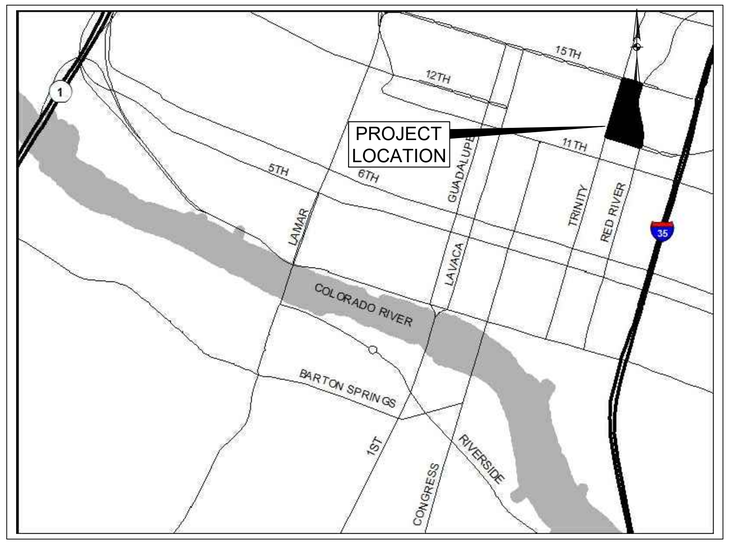
CONTACTS:

SUSAN KENZLE
PROJECT MANAGER
WATERSHED PROTECTION DEPARTMENT
411 CHICON ST.
AUSTIN, TEXAS 78702
(512) 974-2565

JOHN BEACHY
PROJECT SPONSOR
WATERSHED PROTECTION DEPARTMENT
411 CHICON ST.
AUSTIN, TEXAS 78702
(512) 974-3516

NOTES:

1. CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT 24 HOURS PRIOR TO STARTING CONSTRUCTION OR CLEARING OPERATIONS.
2. RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
3. THIS PROJECT IS LOCATED WITHIN THE WALLER CREEK WATERSHED, WHICH IS CLASSIFIED AS AN URBAN ZONE AND SHALL BE DEVELOPED, CONSTRUCTED, AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
4. THIS PROJECT IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS DEFINED BY THE CITY OF AUSTIN. THIS PROJECT IS NOT WITHIN THE EDWRDS AQUIFER RECHARGE ZONE AS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).
5. APPROPRIATE EASEMENTS/APPROVALS MUST BE SECURED AND DOCUMENTED FOR PROJECT AREAS LOCATED OUTSIDE OF RIGHT OF WAYS. NO WORK SHALL BE PERFORMED WITHIN THESE AREAS UNTIL ASSOCIATED RIGHT OF ENTRY HAS BEEN SECURED.
6. THE PROJECT IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN, AS DEFINED BY THE CITY OF AUSTIN, AND AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48453C0465K, EFFECTIVE DATE JANUARY 22, 2020. THE 100-YEAR FLOOD ELEVATION UPSTREAM OF INLET FACILITY IS 483.06', AND APPROXIMATELY 490.00' AT CONSTRUCTION STAGING AREA.



COA GRID: J22 & J23
MAPSCO: MAP 585 P & T

VICINITY MAP
NTS

PROJECT ADDRESS:
500 E 12TH ST.
AUSTIN TEXAS 78701

SUBMITTED FOR APPROVAL BY:

SHELBY G. ECKOLS, P.E.
SENIOR VICE-PRESIDENT
AECOM

STATE OF TEXAS — SHELBY G. ECKOLS — 41485 — RED STERED — PROFESSIONAL ENGINEER — 6/18/21

DATE

CASEY G. WAUTERS, P.E.
PROJECT MANAGER
AECOM

STATE OF TEXAS — CASEY G. WAUTERS — 93889 — LICENSED — PROFESSIONAL ENGINEER — 6/18/21

DATE

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

COVER SHEET

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: CW	PROJECT No. 60593281
DRAWN: AW	DRAWING No. G-01
CHECKED: JNB	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. 1 OF 43
DATE: JUNE 2021	

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5	G–05	STRUCTURAL NOTES
6	C–01	OVERALL SITE PLAN
7	C–02	INLET FACILITY SITE PLAN AND SURVEY CONTROL
8	C–03	SCREENS PLATFORM
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DRAWING NUMBER CONVENTION

X XX

DISCIPLINE

SHEET NUMBER

DISCIPLINE

G	GENERAL
C	CIVIL
M	MECHANICAL
S	STRUCTURAL
I	INSTRUMENTATION
E	ELECTRICAL
T	RECORD DRAWING

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

SHEET INDEX

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
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STATE OF TEXAS · CASEY G. WAUTERS · 93889 · LICENSED · PROFESSIONAL ENGINEER · 6/16/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DESIGNED: BAY	PROJECT No. 60593281
DRAWN: AW	DRAWING No. G-02
CHECKED: CGW	
APPROVED: SGE	SHEET No. 2 OF 43
SCALE: AS NOTED	
DATE: JUNE 2021	

GENERAL CONSTRUCTION NOTES

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF AUSTIN MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

2. CONTRACTOR SHALL CALL THE ONE CALL CENTER (1-800-245-4545 OR 1-800-545-6005) OR DIG TESS (1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.

3. CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION (DPWT) AT 499-7161 AT LEAST 24 HOURS PRIOR TO THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET R.O.W. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S R.O.W. MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.

4. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM No. 509 AND APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). COPIES OF OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FORM OSHA, 611 E. 6TH STREET, AUSTIN, TEXAS.

COMPATIBILITY

1. HIGHLY REFLECTIVE MATERIALS WILL NOT BE USED. MATERIALS MAY NOT EXCEED 20% REFLECTIVITY. THIS REQUIREMENT SHALL NOT APPLY TO SOLAR PANELS OR TO COPPER OR PAINTED METAL ROOFS.

2. THE NOISE LEVEL OF MECHANICAL EQUIPMENT WILL NOT EXCEED 20% DBA AT THE PROPERTY LINE ADJACENT TO RESIDENTIAL USES.

3. ALL EXTERIOR LIGHTING SHALL BE HOODED TO SHIELD FROM THE VIEW OF ADJACENT RESIDENTIAL USES.

4. EXTERIOR LIGHTING ABOVE THE SECOND FLOOR IS PROHIBITED WHEN ADJACENT TO RESIDENTIAL PROPERTY.

5. ALL DUMPSTERS AND ANY PERMANENTLY PLACED REFUSE RECEPTACLES WILL BE LOCATED AT A MINIMUM OF TWENTY (20) FEET FROM A PROPERTY USED OR ZONED AS SF-5 OR MORE RESTRICTIVE.

AMERICANS WITH DISABILITIES ACT

THE CITY OF AUSTIN HAS REVIEWED THIS PLAN FOR COMPLIANCE WITH CITY DEVELOPMENT REGULATIONS ONLY. THE APPLICANT, PROPERTY OWNER, AND OCCUPANT OF THE PREMISES ARE RESPONSIBLE FOR DETERMINING WHETHER THE PLAN COMPLIES WITH ALL OTHERS LAWS, AND REGULATIONS, AND RESTRICTIONS WHICH MAY BE APPLICABLE TO THE PROPERTY AND ITS USE.

GENERAL NOTES

1. THE CONTRACT SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL HAVE PRECEDENT OVER CITY OF AUSTIN SPECIFICATIONS. FOR ITEMS NOT COVERED BY THE PROJECT MANUAL SPECIFICATIONS, THE "CITY OF AUSTIN STANDARD SPECIFICATIONS" AS AMENDED BY SPECIAL PROVISION, CURRENT AT THE TIME OF BIDDING ARE TO GOVERN MATERIALS AND METHODS USED TO DO THIS WORK. UNLESS OTHERWISE NOTED, ANY REVISIONS MADE AFTER BIDDING DO NOT APPLY.

2. THE CITY SPECIFICATION ITEM 509S WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE. CONTRACT DOCUMENTS WHICH INCLUDE A TRENCH SAFETY PLAN AND A PAY ITEM FOR TRENCH SAFETY MEASURES, IN COMPLIANCE WITH TEXAS HEALTH AND SAFETY CODE, TITLE 9, CHAPTER 756, SUBCHAPTER C, MUST BE RECEIVED BY THE TRANSPORTATION AND PUBLIC SERVICES CONTRACT ADMINISTRATION OFFICE BEFORE BEGINNING WORK ON THE PROJECT.

3. ALL MATERIALS TESTS, INCLUDING SOIL DENSITY TESTS AND RELATED SOIL ANALYSES, TO BE ACCOMPLISHED BY AN INDEPENDENT LABORATORY FUNDED BY THE OWNER, UNLESS NOTED OTHERWISE.

4. CONTRACTOR TO TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF THESE CONSTRUCTION OPERATIONS TO BE REPAIRED IMMEDIATELY BY THE CONTRACTOR, AT NO ADDITIONAL COST TO OWNER.

5. CONTRACTOR TO GIVE NOTICE TO ALL AUTHORIZED DEPARTMENTS, INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY CONTRACTOR'S OPERATIONS PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR TO ASSURE THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK. REQUIRED PERMITS THAT CAN ONLY BE ISSUED TO CONTRACTOR TO BE OBTAINED AT CONTRACTOR'S EXPENSE.

6. CONTRACTOR TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING EXCESS AND WASTE MATERIAL, INCLUDING METHODS OF HANDLING AND DISPOSAL.

7. CONTRACTOR TO COORDINATE INTERRUPTIONS OF ALL UTILITIES AND SERVICES. ALL WORK TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY COMPANY OR AGENCY INVOLVED.

GENERAL NOTES (CONTINUED)

8. INTERRUPTION OF STORMWATER FLOWS THROUGH EXISTING FACILITIES IS NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL. SUBMIT TO ENGINEER CONSTRUCTION PLAN WHICH DETAILS SCHEDULE AND TECHNIQUES TO BE USED FOR REVIEW PRIOR TO ANY CONSTRUCTION ACTIVITY. PARTIAL INTERRUPTION OF FLOWS IS TO BE SCHEDULED DURING LOW FLOW PERIODS FOR AS SHORT A DURATION AS PRACTICAL. MAKE PROVISIONS FOR ACCOMMODATING PEAK FLOWS WHICH MAY OCCUR DURING CONSTRUCTION OPERATIONS. ENGINEER TO BE NOTIFIED WHEN ANY INTERRUPTIONS ARE TO BE MADE.

9. THE LOCATION OF SOME EXISTING UTILITIES SHOWN ON PLANS WAS COMPILED FROM RECORD INFORMATION. NO WARRANTY IS IMPLIED AS TO THE ACTUAL LOCATION.

10. WHEN UNLOCATED OR INCORRECTLY LOCATED UNDERGROUND PIPING, OR A BREAK LOCATED IN THE LINE, OR OTHER UTILITIES AND SERVICES ARE ENCOUNTERED DURING SITE WORK OPERATIONS, NOTIFY THE APPLICABLE UTILITY COMPANY IMMEDIATELY TO OBTAIN PROCEDURE DIRECTIONS. COOPERATE WITH THE APPLICABLE UTILITY COMPANY IN MAINTAINING ACTIVE SERVICES IN OPERATION.

11. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS, AND PROJECT ENGINEERING REFERENCE POINTS. RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PUBLIC SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO OWNER.

12. CONTRACTOR TO CONTROL DUST CAUSED BY THE WORK AND COMPLY WITH POLLUTION CONTROL REGULATIONS OF GOVERNING AUTHORITIES.

13. THROUGHOUT THE CONSTRUCTION, AND AT THE COMPLETION OF CONSTRUCTION. THE CONTRACTOR TO ENSURE THAT DRAINAGE OF STORM WATER RUNOFF IS NOT BLOCKED. DO NOT BLOCK DRAINAGE FROM ADJACENT AREAS NOR ADD FLOW TO ADJACENT AREAS.

14. THESE PLANS, PREPARED BY AECOM, DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF AECOM'S REGISTERED PROFESSIONAL ENGINEER(S) HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR TO PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY HOUSE BILLS 662 AND 665 ENACTED BY THE TEXAS LEGISLATURE IN THE 70TH LEGISLATURE - REGULAR SESSION.

15. NO BLASTING ALLOWED ON THIS PROJECT.

16. NO BURNING IS ALLOWED ON THIS PROJECT.

17. REFER TO OVERALL PROJECT LAYOUT FOR LOCATION OF TEMPORARY BENCHMARKS.

18. DEMOLITION PERMITS (IF NEEDED) ARE TO BE OBTAINED BY THE CONTRACTOR.

19. ADJUST MANHOLE COVERS, VALVE BOXES, ELECTRICAL MANHOLES, ETC. TO MATCH PROPOSED FINISHED GRADE.

20. ALL EXCESS EXCAVATED MATERIAL AND SOIL TO BECOME PROPERTY OF CONTRACTOR AND TO BE REMOVED FROM SITE.

21. ALL ABANDONED UTILITIES REMOVED TO FACILITATE CONSTRUCTION TO BECOME PROPERTY OF CONTRACTOR AND TO BE REMOVED FROM SITE.

22. THE ATTENTION OF ALL PROSPECTIVE BIDDERS IS DIRECTED TO SECTION 00140; PARAGRAPHS 2.08, 3.09, AND 3.14, OF THE GENERAL CONDITIONS OF THE AGREEMENT, CITY OF AUSTIN STANDARD SPECIFICATIONS, AND TO THE STATE LAW, (VERNON'S ANNOTATED TEXAS STATUTES, ARTICLE 1436 (C)) AND THE NEED FOR EFFECTIVE PRECAUTIONARY MEASURES WHEN OPERATING IN THE VICINITY OF ELECTRICAL LINES. IF THE CONTRACTOR CHOOSES TO USE EQUIPMENT WITH THE POTENTIAL OF COMING WITHIN THE DISTANCES PROSCRIBED BY STATUTE, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE WORK WITH THE APPROPRIATE ELECTRIC UTILITY/ COMPANY. ALL COSTS ASSOCIATED WITH THIS EFFORT ARE TO BE BORNE BY CONTRACTOR.

23. ALL SITEWORK MUST COMPLY WITH ENVIRONMENTAL REQUIREMENTS.

24. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5 FEET BETWEEN THE EDGE OF AN OPEN TRENCH AND ANY UTILITY POLE. IN THE EVENT THE 5 FEET MINIMUM SEPARATION CAN NOT BE MAINTAINED, THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNER FOR NECESSARY POLE STABILIZATION REQUIREMENTS.

25. CONTRACTOR TO NOTIFY CAPITAL METRO AT LEAST TWO WEEKS IN ADVANCE OF UPCOMING CONSTRUCTION WORK WHICH WILL IMPACT BUS ROUTES AND/OR BUS STOPS. FOR BUS STOPS, CONTRACTOR TO COORDINATE WITH CAPITAL METRO PLANNING DEPARTMENT AT 389-7485. FOR STREET CLOSURES, CONTRACTOR TO CONTACT CAPITAL METRO RADIO CONTROL DISPATCH (OPEN 24 HOURS) AT 369-6119 OR 369-6115.

26. CONTRACTOR SHALL PROVIDE TEMPORARY SAFETY FENCING AS SHOWN IN PLANS AND AT ACCESS SHAFTS AND ENTRY/EXIT PITS TO PROHIBIT UNAUTHORIZED ENTRY TO THESE WORK ZONES.

27. CONTRACTOR SHALL KEEP ALL PAVED SURFACES WITHIN THE LIMITS OF CONSTRUCTION, INCLUDING WITHIN INLET FACILITY AND WATERLOO PARK AND ACCESS ROAD TO POND FREE OF MUD AND DEBRIS. CONTRACTOR SHALL WASH DOWN PAVED SURFACES AS NECESSARY TO REMOVE DIRT AND DEBRIS. ALL ASSOCIATED COSTS ARE SUBSIDIARY TO THE PROJECT.

28. CONTRACTOR SHALL PROVIDE DIFFUSERS ON ALL EQUIPMENT EXHAUST TO MINIMIZE HEAT DAMAGE TO TREE LIMBS. ANY DAMAGE TO TREES SHALL BE TRIMMED AND REPAIRED IMMEDIATELY WITH COORDINATION FROM THE CITY ARBORIST AND PROPERTY OWNER. ALL ASSOCIATED COSTS ARE SUBSIDIARY TO THE PROJECT.

29. CONTRACTOR SHALL PLACE CIP PROJECT SIGNS AT EACH END OF EACH WORK ZONE IN ACCORDANCE WITH ITEM 802S OF THE PROJECT MANUAL.

GENERAL NOTES (CONTINUED)

30. OTHER CONSTRUCTION CONTRACTS ARE UNDER WAY ON THIS SITE. CONTRACTOR SHALL COORDINATE THIS WORK ON THIS SITE WITH OTHER CONSTRUCTION CONTRACTS.

31. THE WALLER CREEK INLET FACILITY IS AN ACTIVE FLOOD CONTROL FACILITY. CONTRACTOR SHALL COORDINATE WITH OWNER TO ENSURE THAT CONSTRUCTION DOES NOT IMPACT THE PERFORMANCE AND OPERATIONS OF THE OTHER FIVE (5) INLET BAYS.

32. CONTRACTOR SHALL COORDINATE DEWATERING OF THE INLET POOL WITH THE OWNER AT LEAST TWO (2) WEEKS IN ADVANCE. CONTRACTOR SHALL COORDINATE WORK IN THE INLET POOL SUCH THAT NO EQUIPMENT / TOOLS / MATERIALS ARE LEFT IN THE INLET POOL AT THE END OF EACH DAY. IN ADDITION, DURING THE DAY ACTIVITIES SHALL BE COORDINATED BASED ON WEATHER FORECAST FOR RAIN WITHIN THE DRAINAGE AREA AND CAPABLE OF REMOVING PERSONNEL / EQUIPMENT / TOOLS / MATERIALS PROMPTLY.

REFERENCE DRAWINGS

1. RECORD DRAWINGS ARE PROVIDED AS REFERENCE DRAWINGS TO SHOW EXISTING FACILITIES. THE RECORD DRAWINGS AND THE EXISTING FACILITIES ARE SHOWN WITH GRAY LINE TO DIFFERENTIATE FROM PROPOSED IMPROVEMENTS.

2. THE REFERENCE DRAWINGS INCLUDED IN THIS CONTRACT WERE SELECTED FROM PREVIOUS CONSTRUCTION CONTRACTS AND THESE DRAWINGS DEFINE WORK THAT WAS DONE DURING THOSE CONTRACTS.

3. THE WORK THAT IS PART OF THIS CONTRACT IS SHOWN WITH SOLID, BLACK LINE. CONTRACTOR TO DISREGARD ANY WORK SHOWN WITH THIN, GRAY LINE OR GRAY TEXT, SINCE THAT WORK WAS PART OF PREVIOUS CONTRACTS.

4. SOME INFORMATION ON THE REFERENCE DRAWINGS MAY BE DIFFERENT FROM THE ACTUAL FIELD CONDITIONS.

5. PARTS OF THE RECORD DRAWINGS ARE USED AS BACKGROUND TO DEPICT THE PROPOSED WORK. CONTRACTOR TO DISREGARD ANY WORK DIRECTIVES FOUND IN THE REFERENCE DRAWINGS. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THE CONDITIONS SHOWN IN THE RECORD DRAWINGS BACKGROUND.

6. CONTRACTOR TO FIELD VERIFY INSTALLED CONDITIONS IMPACTING OR IMPACTED BY THIS WORK PRIOR TO INITIATING WORK.

PROJECT SPECIFIC NOTES

1. ACCESS TO INLET POOL SHALL BE PROVIDED VIA EXISTING ACCESS DRIVEWAY. CONTRACTOR SHALL COORDINATE WITH OWNER, AND WATERLOO PARK OPERATOR FOR ACCESS REQUIREMENTS.

2. PROJECT CONSTRUCTION WORKING HOURS ARE FROM 6:30 A.M. TO 4:30 P.M. MONDAYS THROUGH FRIDAYS. ANY WORK REQUEST OUTSIDE THE INDICATED HOURS SHALL BE COORDINATED DIRECTLY WITH THE OWNER PRIOR TO START OF ASSOCIATED WORK ACTIVITY.

3. WALLER CREEK IS SUBJECT TO FLASH FLOODING. CONTRACTOR IS RESPONSIBLE FOR MONITORING THE WEATHER FORECAST AND CREEK LEVEL. IN THE EVENT OF WET WEATHER, CONTRACTOR SHALL TAKE ALL NECESSARY ACTIONS TO SECURE THE WORK AND STAGING AREA TO PREVENT AND MINIMIZE ANY POTENTIAL DAMAGE. DURING CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH CITY OF AUSTIN FLOOD EARLY WARNING SYSTEM (FEWS) AT https://www.austintexas.gov/department/flood-early-warning-system FOR MONITORING WEATHER FORECAST AND CONDITIONS WITHIN THE WALLER CREEK BASIN.

4. CONTRACTOR TO REMOVE ALL EQUIPMENT FROM INSIDE POOL TO SPECIFIED STAGING AREA AT THE END OF EACH WORK DAY.

5. CONTRACTOR IS RESPONSIBLE FOR PROMPTLY CLEANING THE BAY 4 SCREEN PANELS AT THE CONCLUSION OF EACH STORM EVENT, AND WHILE THE AUTOMATIC CLEANING MECHANISM IS OUT OF SERVICE, TO ALLOW PASSAGE OF STORM WATER THROUGH THE BAY 4 SCREENS AT ALL TIMES.

6. CONSTRUCTION EQUIPMENT SHALL BE EQUIPPED WITH SPILL PREVENTION MEASURES AND FUEL SECONDARY CONTAINMENT. REFER TO SPECIFICATION 01046, "SEQUENCE OF CONSTRUCTION" FOR SUBMITTAL REQUIREMENTS.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

GENERAL NOTES

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
CASEY G. WAUTERS
93889
LICENSED
PROFESSIONAL ENGINEER
6/9/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
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DESIGNED: CGW	PROJECT No. 60593281
DRAWN: AW	DRAWING No. G-03
CHECKED: JNB	
APPROVED: SGE	SHEET No. 3 OF 43
SCALE: AS NOTED	
DATE: JUNE 2021	

CIVIL LEGEND

96.5 / 96.5	CONTOUR LINE
93.6 OR 93.6	SPOT ELEVATION
W	WATER LINE
WW	WASTEWATER LINE
S	STORM SEWER LINE
E O/H	ELECTRIC LINE (OVERHEAD)
G	GAS LINE
	DRAWING MATCH LINE
	CENTERLINE, BUILDING, ROAD, ETC.
ROW	PROPERTY LINE/RIGHT OF WAY
	EASEMENT LINE
	SURVEY OR SUBDIVISION BOUNDARY
SF SF	SILT FENCING
TP TP	TREE PROTECTION
LOC LOC	LIMITS OF CONSTRUCTION
	TREE TO BE REMOVED
001	TREE WITH TAG NO.
	STABILIZED CONSTRUCTION ENTRANCE
	ROCK BERM
//——//	FENCE

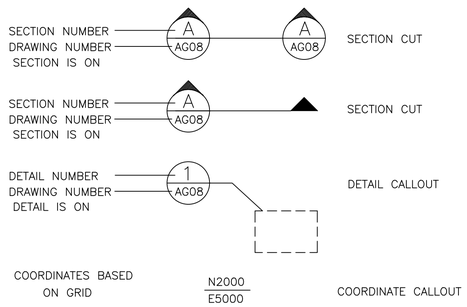
TSP	TRAFFIC SIGNAL POLE
TCB	TRAFFIC SIGNAL CONTROL BOX
PM	PMT
PM	PM
	REFLECTOR POST
	SIGN
W	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
W	WATER LINE MARKER
WMH	WATER MANHOLE
S	SPRINKLER
BIB	SPRINKLER FAUCET / HOSE BIB
FH	FIRE HYDRANT
E	ELECTRIC METER
E	ELECTRIC JUNCTION BOX
E	ELECTRIC PEDESTAL
E	ELECTRIC LINE MARKER
EMH	ELECTRIC MANHOLE
	UTILITY POWER POLE
	GUY ANCHOR
	LIGHT POLE / STREET LIGHT / GROUND LIGHT
	BOREHOLE
G	GAS METER
GV	GAS VALVE
G	GAS LINE MARKER
GMH	GAS MANHOLE
	STORM DRAIN INLET
STMH	STORM DRAINAGE MANHOLE
CO	WASTEWATER CLEAN OUT
WWMH	WASTEWATER MANHOLE
TV	CABLE TELEVISION JUNCTION BOX
TV	CABLE TELEVISION PEDESTAL
TV	CABLE TELEVISION LINE MARKER
TEL	TELEPHONE JUNCTION BOX
T	TELEPHONE PEDESTAL
TMH	TELEPHONE MANHOLE
T	TELEPHONE LINE MARKER
FO	FIBER–OPTIC JUNCTION BOX
FMH	FIBER–OPTIC MANHOLE
FO	FIBER–OPTIC LINE MARKER

TYPICAL "A"	Parking Meter	0.90'x0.95'x5.80'
TYPICAL "B"	Utility/Light Pole	1.2'x1.2' Base, 8" Diameter Pole
TYPICAL "C"	Fire Hydrant	12.5" Diameter, 2.9' Tall
TYPICAL "D"	Utility/Light Pole	13.5"x13.5" Base, 9" Diameter Pole
TYPICAL "E"	Electric Meter	24" Diameter

NOTES:

1. IN GENERAL, EXISTING STRUCTURES AND FACILITIES ARE NOTED AS "EXISTING" AND ARE SHOWN IN LIGHT LINE WEIGHTS, OR AS SCREENED BACKGROUND. NEW STRUCTURES ARE SHOWN IN HEAVY LINE WEIGHTS.

GENERAL LEGEND



NOTES:

1. IF A SECTION OR DETAIL IS PROVIDED ON THE SAME DRAWING THAT IT IS TAKEN FROM, THE SHEET NUNBER IS REPLACED WITH A HYPHEN (–).

ABBREVIATIONS

ABDN	ABANDONED
ARV	AIR RELEASE VALVE
AWS	AVERAGE WATER SURFACE
BFV	BUTTERFLY VALVE
BOP	BOTTOM OF PIPE
BS	BAR SCREEN
C	CURVE, CONDUIT
CARV	COMBINATION AIR RELEASE/ VACUUM RELIEF VALVE
CATV	CABLE TV
CF	CUBIC FEETCAST
CI	CAST IRON
CL	CENTERLINE
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
DESC	DESCRIPTION
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DOC. NO	DOCUMENT NUMBER
D.R.T.C.Tx	DEED RECORDS OF TRAVIS COUNTY, TEXAS
DWG	DRAWING
E	ELECTRIC
EJ	EXPANSION JOINT
EL	ELEVATION (ELEV)
EOP	EDGE OF PAVEMENT
ESMT	EASEMENT
EXIST	EXISTING
EXP	EXPANSION
FL	FLOWLINE
FLG	FLANGE
FO	FIBER OPTIC
FRPM	FIBERGLASS REINFORCED PLASTIC MORTAR
FT	FEET
GAL	GALLON
GALV	GALVANIZED
GB	GRADE BREAK
GV	GATE VALVE
HORIZ	HORIZONTAL
HWY	HIGHWAY
INV	INVERT
JT	JOINT
LF	LINEAR FEET
LOC	LIMITS OF CONSTRUCTION
LT	LEFT
MAX	MAXIMUM
MFGR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MS	MULCH SOCK
N	NORTH
NG	NATURALGROUND
No.	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OCEF	ON CENTER EACH FACE
OCEW	ON CENTER EACH WAY
OD	OUTSIDE DIAMETER
O.P.R.T.C.Tx	OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PNTCR	POINT OF NON–TANGENT CURVE RETURN
PROP	PROPOSED
P.R.T.C.Tx	PLAT RECORDS OF TRAVIS COUNTY, TEXAS
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
R	RADIUS
RB	ROCK BERM
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT–OF–WAY
RED	REDUCER
REF	REFERENCE
R.P.R.T.C.Tx	REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS
RT	RIGHT
SF	SILT FENCE
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SF	SILT FENCE
STA	STATION
STD	STANDARD
STL	STEEL
STM	STORM SEWER
STR	STREAM
SUPT	SUPPORT
TBA	TO BE ABANDONED
T	TELEPHONE
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
T.C.A.D.	TRAVIS COUNTY APPRAISAL DISTRICT
TEMP	TEMPORARY
TFD	TRIANGULAR FILTER DIKE
TOC	TOP OF CONCRETE
TP	TOP OF PAVEMENT
TYP	TYPICAL
UNO	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VL	VENT LINE
VOL. PG.	VOLUME, PAGE
W	WATER
WL	WATER LINE
WSE	WATER SURFACE ELEVATION
WW	WASTEWATER
( )	RECORD INFORMATION

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

LEGEND AND ABBREVIATIONS

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
CASEY G. WAUTERS
93889
LICENSED
PROFESSIONAL ENGINEER
6/16/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	CW
DRAWN:	AW
CHECKED:	JNB
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	JUNE 2021

PROJECT No. 60593281
DRAWING No. G-04
SHEET No. 4 OF 43

GENERAL NOTES

1. THESE GENERAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS AND DETAILS.
2. CONSTRUCTION WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE 2015 INTERNATIONAL BUILDING CODE (IBC).
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH ARCHITECTURAL, CIVIL, ELECTRICAL, INSTRUMENTATION AND SECURITY DRAWINGS BEFORE STARTING WORK. IN CASE OF DISCREPANCY, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF SAME IN A TIMELY MANNER.
4. COMPLETE SHOP DRAWINGS FOR THE STRUCTURAL WORK SHALL BE SUBMITTED FOR REVIEW PRIOR TO COMMENCEMENT OF CONSTRUCTION IN ACCORDANCE WITH THE SPECIFICATIONS. REVIEW OF SHOP DRAWINGS BY THE ARCHITECT/ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR CORRECT FABRICATION AND CONSTRUCTION OF THE WORK.
5. THE STRUCTURAL DRAWINGS SHALL NOT BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS, OR FIT OF MATERIALS.
6. PRINCIPAL OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS, THE CONTRACTOR SHALL REFER TO ARCHITECTURAL, CIVIL, ELECTRICAL, INSTRUMENTATION AND SECURITY DRAWINGS FOR SLEEVES, CURBS, INSERTS AND SIMILAR DETAILS NOT SHOWN. SIZE AND LOCATION OF ALL OPENINGS SHALL BE VERIFIED BY THE CONTRACTOR. ANY DEVIATION FROM OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ARCHITECT/ENGINEERS ATTENTION PRIOR TO CONSTRUCTION.
7. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHODS OF CONSTRUCTION UNLESS SO STATED OR NOTED. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE WORKERS AND ALL OTHER PERSONS DURING CONSTRUCTION.
8. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SHORING OF ALL STRUCTURAL WORK AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONSTRUCTION SITE MANAGER OF ANY CONDITION WHICH, IN HIS OPINION, MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS IN THE STRUCTURE.
9. CONSTRUCTION MATERIALS SHALL NOT BE STORED ON FLOORS OR ROOFS IN EXCESS OF THE DESIGN LIVE LOADS. IMPACT SHALL BE AVOIDED WHEN PLACING MATERIALS ON FLOORS OR ROOFS
10. PROTECT EXISTING PAVEMENT FROM HEAVY CONSTRUCTION EQUIPMENT LOADS, BY USING BEARING PADS. (TIMBER, RUBBER OR STEEL PLATES). CONTRACTOR SHALL REPAIR OR REPLACE SECTIONS OF PAVEMENT DAMAGED DUE TO CONSTRUCTION ACTIVITIES, AT NO ADDITIONAL COST TO THE OWNER.

CONCRETE NOTES

1. ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE (ACI) SPECIFICATION, ACI #301 & BUILDING CODE REQUIREMENTS, ACI #318, LATEST EDITION, FOR BUILDING STRUCTURES & BUILDING CODE REQUIREMENTS, ACI #350-06, FOR ENVIRONMENTAL STRUCTURES.
2. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE". ACI #315, LATEST EDITION.
3. UNLESS SHOWN OTHERWISE IN THE SPECIFICATIONS, CONCRETE SHALL BE CLASS 'S' CONCRETE WITH 4000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS. CONCRETE SHALL BE AIR ENTRAINED (5% TO 7%). ALSO REFER TO SPECIFICATIONS FOR ADDITIONAL CONCRETE MIX DESIGN REQUIREMENTS.
4. REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60.
5. STANDARD PROTECTIVE COVER OF REINFORCING BARS UNLESS OTHERWISE NOTED SHALL BE:

WHERE CAST AGAINST DIRT OR FILL	3 IN.
WHERE CAST AGAINST SEAL SLAB	2 IN.
EXPOSED TO EARTH, WATER, OR WEATHER	2 IN.
SLABS AND WALLS	2 IN.
OTHER	2 IN.

6. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", ACI #315, LATEST EDITION. ACCESSORIES FOR INTERIOR CONCRETE SURFACES EXPOSED TO VIEW SHALL HAVE PLASTIC COATED FEET. ACCESSORIES FOR CONCRETE SURFACES EXPOSED TO EARTH, WEATHER, WATER, OR HIGH HUMIDITY SHALL BE FABRICATED OF STAINLESS STEEL OR PLASTIC. PROVIDE BOLSTERS AT SUSPENDED SLABS, WALLS AND WIDE BEAMS. PROVIDE STANDEES AT ALL SLABS WITH TWO LAYERS OF REINFORCING. FOR SLAB-ON-GRADE REINFORCING, PROVIDE CHAIRS MANUFACTURED FROM HOT--DIPPED GALVANIZED STEEL, STAINLESS STEEL, PLASTIC, OR PRECAST CONCRETE BLOCKS OF EQUAL OR GREATER COMPRESSIVE STRENGTH AS THE CONCRETE BEING POURED.
7. MAINTAIN A MINIMUM OF ONE BAR DIAMETER (BUT NOT LESS THAN 1") BETWEEN ALL CONTINUOUS REINFORCING BARS ON ALL SLABS. MAINTAIN A MINIMUM OF 1-1/2" BETWEEN BARS IN COLUMNS, AND A MINIMUM OF 1-1/2 TIMES THE MAXIMUM COARSE AGGREGATE SIZE IN ALL CASES.
8. BARS SCHEDULED AND DETAILED "CONT" SHALL BE LAPPED AS CLASS A TENSION SPLICES ACCORDING TO BAR PLACING DIAGRAM UNLESS OTHERWISE NOTED THE SPLICES SHALL OCCUR AT MIDSPAN FOR TOP BARS AND OVER THE SUPPORTS FOR BOTTOM BARS.
9. SHOP DRAWINGS SHALL BE PREPARED FOR ALL REINFORCING STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.
10. WELDING OF REINFORCING BARS SHALL NOT BE PERMITTED, UNLESS APPROVED A BY ENGINEER.
11. DURING PLACEMENT OF CONCRETE, USE TREMIE OR OTHER MEANS TO LIMIT FREE FALL OF CONCRETE TO 5'-0".
12. VERTICAL REINFORCING, DOWEL, AND LAPS ARE OFFSET IN DETAILS FOR CLARITY. BARS SHOULD BE CONSIDERED TO BE IN THE SAME PLANE AT EXTERNAL FACE.
13. CONCRETE SHALL MEET THE REQUIREMENTS OF THE FOLLOWING CLASS AS DEFINED BY THE PROJECT SPECIFICATIONS (COA SPECIFICATION ITEM No. 403S CONCRETE FOR STRUCTURES).

CONCRETE CLASS (MIN. 28 DAY STRENGTH)	CLASS S5 (4,000 PSI)
COARSE AG6, GRADE (MAX. NOM. SIZE)	GRADE 2 (1 1/2")
SUMP RANGE	3" TO 5"
HIGH RANGE WATER REDUCER REQ'D.	YES

14. CONCRETE PLACED BY PUMPING SHALL MEET THE FOLLOWING REQUIREMENTS:
    a. COARSE AGGREGATE (AGG) SHALL BE GRADED FROM A MAXIMUM OF 1".
    b. MAXIMUM ALLOWABLE INCREASE IN CEMENT FACTOR SHALL BE 1/2 SACK PER CUBIC YARD OVER NORMAL MIX DESIGN.
    c. MAXIMUM WATER CEMENT RATIO WILL CONFORM TO REQUIREMENTS STATED IN THE PROJECT SPECIFICATIONS. IF MORE WORKABILITY IS REQUIRED, AN ADMIXTURE MAYBE USED.
    d. MAXIMUM WEIGHT RATIO OF FINE AGGREGATES TO COARSE AGGREGATES (AGO) SHALL NOT EXCEED 2/3.
    e. REFER TO ACI 301, LATEST EDITION, SECTION 800, FOR OTHER PUMPING REQUIREMENTS.
    f. IN NO CASE SHALL CONCRETE BE PUMPED THROUGH AN ALUMINUM TUBE.

STRUCTURAL STEEL NOTES

1. ALL W, S, I HOT-ROLLED STRUCTURAL SHAPES SHALL CONFORM TO ASTM A992, GRADE 36 STEEL ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO THE ASTM SPECIFICATION A-36 UNLESS OTHERWISE SHOWN OR NOTED.
2. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM SPECIFICATION A-500, GRADE B.
3. ALL STAINLESS STEEL SHAPES SHALL CONFORM TO ASTM SPECIFICATION A-276, AND/OR A-479 TYPE 316L, UNLESS OTHERWISE SHOWN OR NOTED. ALL STAINLESS STEEL PLATE, SHEET, OR STRIP SHALL CONFORM TO ASTM A-666 OR A-240.
4. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION AND THE STEEL JOIST INSTITUTE.
5. ALL STRUCTURAL BOLTS SHALL CONFORM TO ASTM A-325N UNLESS OTHERWISE SHOWN OR NOTED. FURNISH HARDENED WASHERS AT ALL BOLTED CONNECTIONS, INCLUDING ANCHOR BOLTS.
6. ALL STAINLESS STEEL BOLTS AND EXPANSION ANCHORS SHALL CONFORM TO ASTM F-593, TYPE 316 AND ALL NUTS SHALL CONFORM TO ASTM F-594, TYPE 316.
7. REFER TO ARCHITECTURAL, MECHANICAL, HAVC AND ELECTRICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC, FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.
8. ALL BEAMS AND COLUMNS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS OTHERWISE INDICATED ON PLANS.
9. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS WITHIN THE PREVIOUS SIX MONTHS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS A.W.S. D1.1.
10. ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN MEMBERS AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.
11. SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.

SPECIAL INSPECTIONS

1. EXISTING CONCRETE DECK IS REINFORCED WITH POST TENSIONED CABLES. CONTRACTOR SHALL DRILL NO HOLES INTO EXISTING CONCRETE DECK UNLESS EXISTING POST TENSION CABLES HAVE BEEN LOCATED, PROPOSED HOLE LOCATIONS DEFINED, AND LOCATIONS HAVE BEEN REVIEWED AND APPROVED BY OWNER.
2. CONTRACTOR SHALL COORDINATE WITH OWNER TO ACCOMPLISH SPECIAL INSPECTIONS REQUIRED FOR THE PROJECT AND ENSURE PROPER NOTIFICATION TO THE SPECIAL INSPECTION OR TESTING AGENCY. OWNER IS RESPONSIBLE FOR CONTRACTING WITH AND PAYING THE SPECIAL INSPECTION AGENCY.

   CONTRACTOR SHALL REVIEW THE LATEST VERSION OF THE CITY OF AUSTIN DEVELOPMENT SERVICES DEPARTMENT "STATEMENT OF SPECIAL INSPECTIONS" FORM TO IDENTIFY ALL ITEMS UNDER CONCRETE – SECTION 1705.3 THAT MUST BE PERFORMED AND WILL REQUIRE NOTIFICATION FOR INSPECTION FOR THIS PROJECT.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

CITY OF AUSTIN
FOUNDED 1839

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

STRUCTURAL NOTES

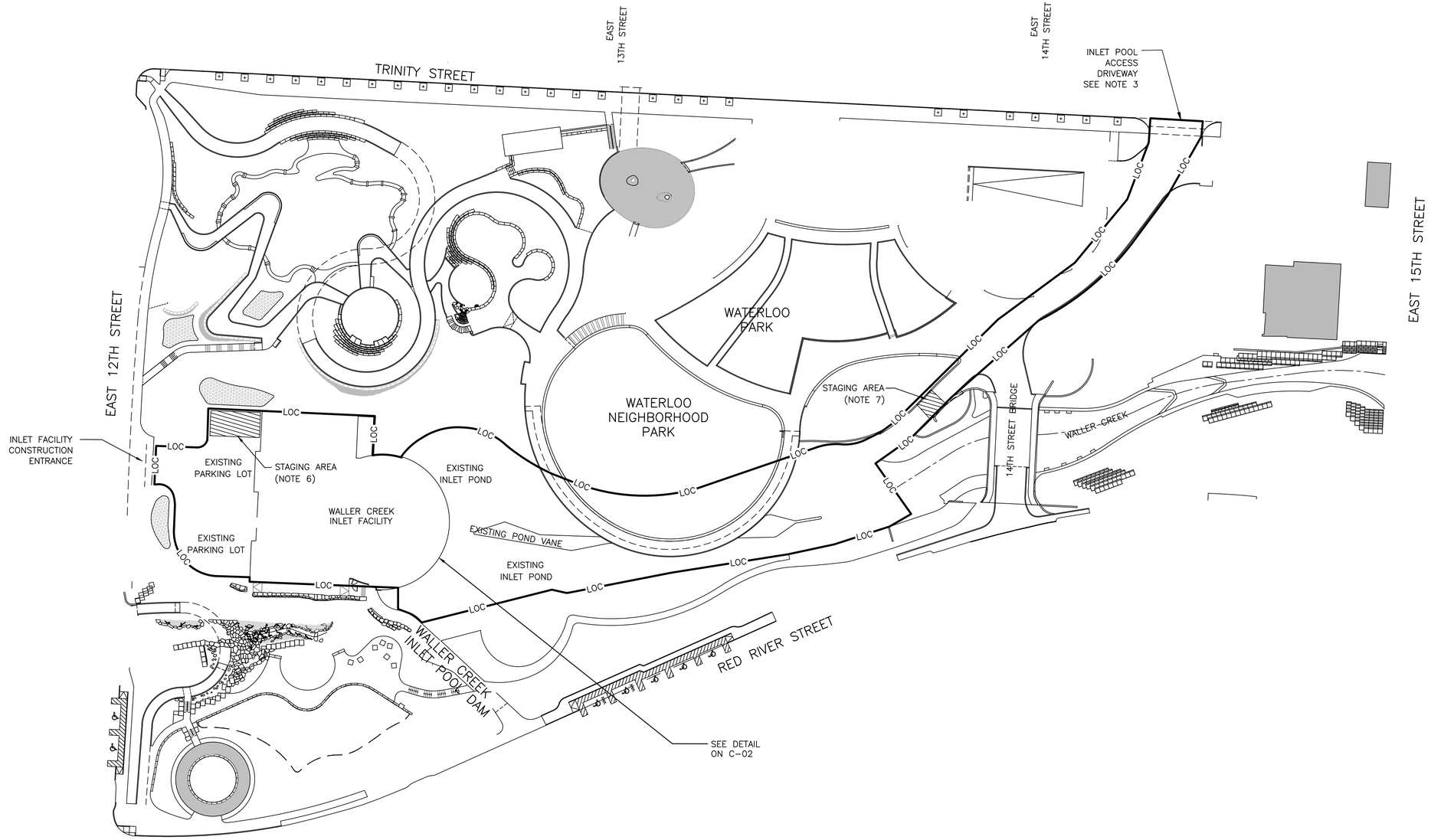
AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHELBY G. ECKOLS
41485
REGISTERED
PROFESSIONAL ENGINEER
1/18/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	CW
DRAWN:	AW
CHECKED:	JNB
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	JUNE 2021

PROJECT No. 60593281
DRAWING No. G-05
SHEET No. 5 OF 43



SCALE: 1"=50'

NOTES:

1. WATERLOO PARK SITE BACKGROUND IS BASED ON INFORMATION PROVIDED BY THE OWNER OF THE PROPOSED PARK FACILITIES THAT ARE CURRENTLY IN CONSTRUCTION. THIS SURVEY DOES NOT INCLUDE INFORMATION ON THE WALLER CREEK INLET FACILITY. SEE SHEET C-02 FOR SURVEY RELATED TO THE INLET FACILITY.
2. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY HIS/HER WORK PRIOR TO THE START OF CONSTRUCTION.
3. ACCESS TO INLET POOL SHALL BE PROVIDED VIA EXISTING ACCESS DRIVEWAY. CONTRACTOR SHALL COORDINATE WITH OWNER, AND WATERLOO PARK OPERATOR FOR ACCESS REQUIREMENTS. PARK WILL BE OPEN TO THE PUBLIC AND CONTRACTOR SHALL TAKE ALL SAFETY PRECAUTIONS WHEN TRAVELING THROUGH THE PARK.
4. THIS PROJECT IS LOCATED WITHIN THE WALLER CREEK WATERSHED, WHICH IS CLASSIFIED AS AN URBAN ZONE, AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
5. THE PROJECT IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN, AS DEFINED BY THE CITY OF AUSTIN, AND AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP NO. 48453C0465K, EFFECTIVE DATE JANUARY 22, 2020. THE 100-YEAR FLOOD ELEVATION UPSTREAM OF INLET FACILITY IS 483.06', AND APPROXIMATELY 490.00' AT THE ACCESS RAMP TO THE INLET POOL.
6. STAGING AREA CAN BE PROVIDED IN THE 4 PARKING SPOTS AT THE INLET FACILITY. CONTRACTOR SHALL PROVIDE WRITTEN REQUEST TO THE OWNER TWO WEEKS IN ADVANCE AND SHALL INCLUDE DATES AND DURATION FOR STAGING AREA ACCESS.
7. STAGING AREA CAN BE PROVIDED ON INLET POOL ACCESS RAMP ABOVE THE 100-YEAR FLOOD ELEVATION AND BELOW THE FUTURE RAMP GATE. CONTRACTOR SHALL PROVIDE WRITTEN REQUEST TO THE OWNER AND WATERLOO PARK OPERATOR TWO WEEKS IN ADVANCE AND SHALL INCLUDE DATES AND DURATION FOR STAGING AREA ACCESS.

LEGEND:

LOC LOC LOC LIMITS OF CONSTRUCTION

APPROXIMATE LOCATION OF STAGING AREA

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

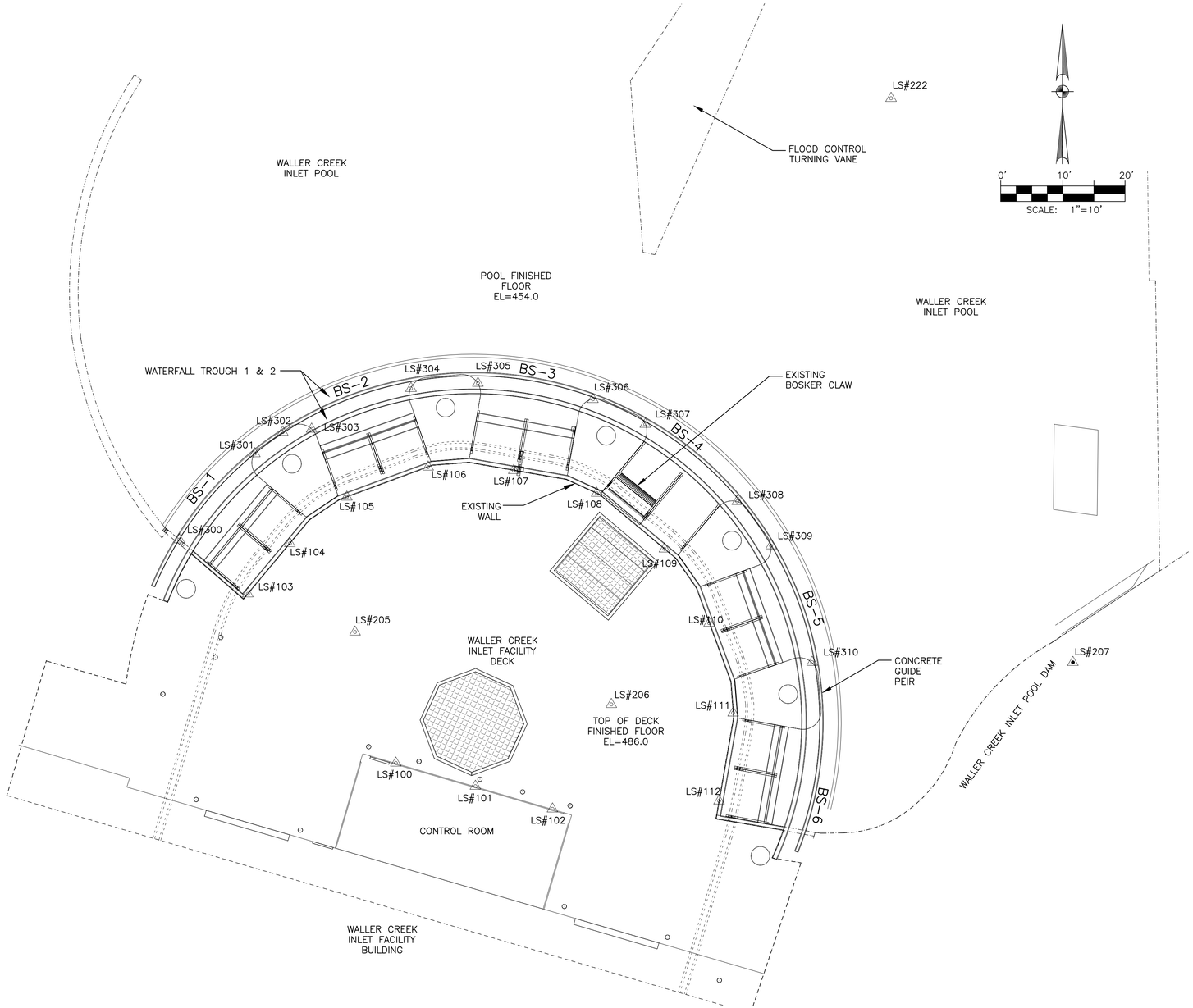
OVERALL SITE PLAN

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
CASEY G. WAUTERS
93889
LICENSED
PROFESSIONAL ENGINEER
6/16/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: CGW	PROJECT No. 60593281
DRAWN: AW	DRAWING No. C-01
CHECKED: JNB	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. 6 OF 43
DATE: JUNE 2021	



LEGEND

BM	BENCHMARK SET
	CONTROL POINT SET
	CONTROL POINT FOUND
LS#	LANDMARK SURVEYING POINT NUMBER
BM	BENCHMARK SET
CPS	CONTROL POINT SET

NOTES:

1. SURVEY INFORMATION WAS PROVIDED BY LANDMARK SURVEYING, LP, TEXAS FIRM REGISTRATION No. 100727–00 ON MARCH 5, 2019.
2. THIS DRAWING IS BASED ON MEASURED DISTANCES IN THE FIELD NOT ON GRID DISTANCES.
3. THE PURPOSE OF THIS DRAWING IS TO PROVIDE AS–BUILT INFORMATION OF THE UPSTREAM PORTION OF THE INLET FACILITY AT WATERLOO PARK, AS PER SPC–2010–0247C.
4. FLOODPLAIN NOTE
   THIS PROJECT SITE OCCUPIES AREAS WITHIN ZONE AE, FIRM MAP NUMBER 48453C0465K, DATED JANUARY 22, 2020, AS PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, THE PURPOSE OF WHICH IS FOR FLOOD INSURANCE ONLY.

HORIZONTAL DATUM

TEXAS COORDINATE SYSTEM OF 1983, (CENTRAL ZONE–4203) NAD 83, (CORS) U.S. SURVEY FEET. GEOID MODEL 12A (CONUS)
COMBINED SCALE FACTOR
SURFACE ADJUSTMENT FACTOR
PROJECT CONTROL POINTS WERE ESTABLISHED USING THE LEICA SMARTNET NETWORK.
THE DISTANCES SHOWN HEREON ARE SURFACE.
PROJECT CONTROL SCALED FROM LANDMARK'S(LS) POINT NUMBER

LANDMARK SURVEYING CONTROL POINTS

PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
LS#100	10072680.04	3116493.56	495.42	CPS TARGET
LS#101	10072676.30	3116506.35	495.46	CPS TARGET
LS#102	10072672.64	3116518.75	495.28	CPS TARGET
LS#103	10072707.27	3116469.74	488.82	CPS TARGET
LS#104	10072715.35	3116476.50	488.70	CPS TARGET
LS#105	10072722.82	3116485.67	488.78	CPS TARGET
LS#106	10072727.66	3116498.75	488.73	CPS TARGET
LS#107	10072727.11	3116512.51	488.88	CPS TARGET
LS#108	10072723.45	3116525.86	488.81	CPS TARGET
LS#109	10072714.48	3116536.76	488.74	CPS TARGET
LS#110	10072702.54	3116543.96	488.78	CPS TARGET
LS#111	10072688.11	3116547.82	488.79	CPS TARGET
LS#112	10072673.93	3116545.55	488.83	CPS TARGET
LS#200	10073200.91	3116395.44	0.0000	CPS IRS WITH LS CAP
LS#201	10073057.62	3116455.08	0.0000	CPS IRS WITH LS CAP
LS#204	10072815.41	3116428.92	498.16	CPS IRS WITH LS CAP
LS#205	10072701.11	3116486.98	486.09	CPS X SET–IN–CONC.
LS#206	10072689.46	3116528.21	486.03	CPS X SET–IN–CONC.
LS#207	10072696.24	3116602.46	484.04	CPF MAG NAIL FND IN CONC.
LS#208	10072806.30	3116621.21	478.55	CPF XCUTINCNCVLT
LS#220	10073033.02	3116582.85	471.89	CPS MAG NAIL SET
LS#221	10073060.35	3116610.08	472.68	CPS MAG NAIL SET
LS#222	10072786.99	3116573.22	455.85	CPS MAG NAIL SET
LS#223	10072817.12	3116510.97	456.73	CPS MAG NAIL SET
LS#300	10072715.96	3116458.72	459.99	CPS TARGET
LS#301	10072729.81	3116470.87	460.03	CPS TARGET
LS#302	10072733.27	3116475.35	460.07	CPS TARGET
LS#303	10072733.77	3116480.00	459.64	CPS TARGET
LS#304	10072740.31	3116495.98	459.81	CPS TARGET
LS#305	10072741.14	3116506.75	459.87	CPS TARGET
LS#306	10072738.55	3116525.24	459.83	CPS TARGET
LS#307	10072734.54	3116533.67	459.99	CPS TARGET
LS#308	10072722.12	3116548.47	459.72	CPS TARGET
LS#309	10072714.99	3116553.91	459.54	CPS TARGET
LS#310	10072696.25	3116560.51	459.37	CPS TARGET
LS#400	10072555.68	3116337.61	494.49	CPF CHK–MMTRAV
LS#405	10072439.87	3116578.62	479.98	CPF CHK–CSF
LS#428	10072901.30	3116636.97	480.81	CPF CHK–CIRF–UNK
LS#500	10072515.76	3116433.53	486.54	BMS TBM–A

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

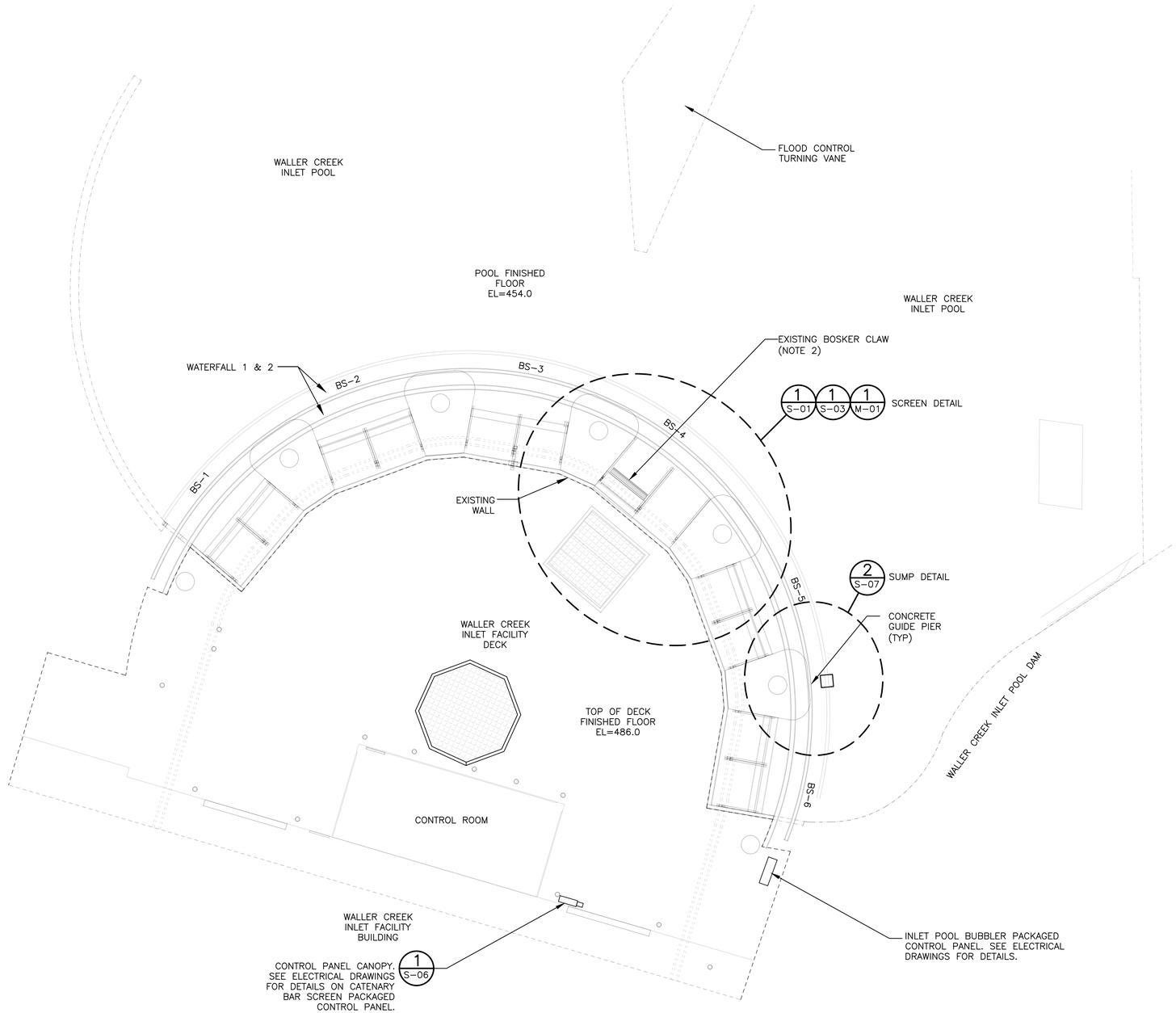
INLET FACILITY SITE PLAN
AND SURVEY CONTROL

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
CASEY G. WAUTERS
93889
LICENSED
PROFESSIONAL ENGINEER
6/16/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: CGW	PROJECT No. 60593281
DRAWN: AW	
CHECKED: JNB	DRAWING No. C-02
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. 7 OF 43
DATE: JUNE 2021	



0' 10' 20'

SCALE: 1"=10'

NOTES:

1. SEE SHEET T-02 FOR RECORD DRAWING OF THIS AREA.
2. EXISTING BAR RACKS NOT SHOWN FOR CLARITY.
3. PROVIDE A NEW BUBBLER LEVEL SENSING SYSTEM FOR LEVEL MEASUREMENT INSIDE INLET POOL AT A LOCATION TO BE DETERMINED BY THE OWNER ALONG THE WALL OF SCREEN BAY 6. STAINLESS STEEL BUBBLER TUBES TO BE INSTALLED AT THE LOCATION, PER ELEVATIONS DEFINED BELOW. CONTRACTOR TO SUPPLY A COMPLETE SYSTEM, INCLUDING A SOURCE OF COMPRESSED AIR, ALL ISOLATION VALVES, REGULATORS, AIR FILTER, AND CONNECTION TO HIGH PRESSURE AIR SYSTEM AS NEEDED, FOR A COMPLETE SYSTEM IN PLACE. PRESSURE INDICATING AND TRANSMITTERS AS DEFINED ON ELECTRICAL DRAWINGS AND SPECIFICATION SECTION 17380. PROVIDE A NEW NEMA 4X BUBBLER PANEL, AT THE LOCATION SHOWN ON ELECTRICAL DRAWINGS.

EL 484.00	MAX WATER LEVEL INDICATOR AT 30'
EL 483.00	HIGH POOL LEVEL ALARM INDICATOR AT 29.0'
EL 473.50	NORMAL POOL LEVEL INDICATOR AT 19.5'
EL 457.00	BOTTOM OF BUBBLER TUBE INDICATOR AT 3.00'
EL 454.00	BOTTOM OF BASIN

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

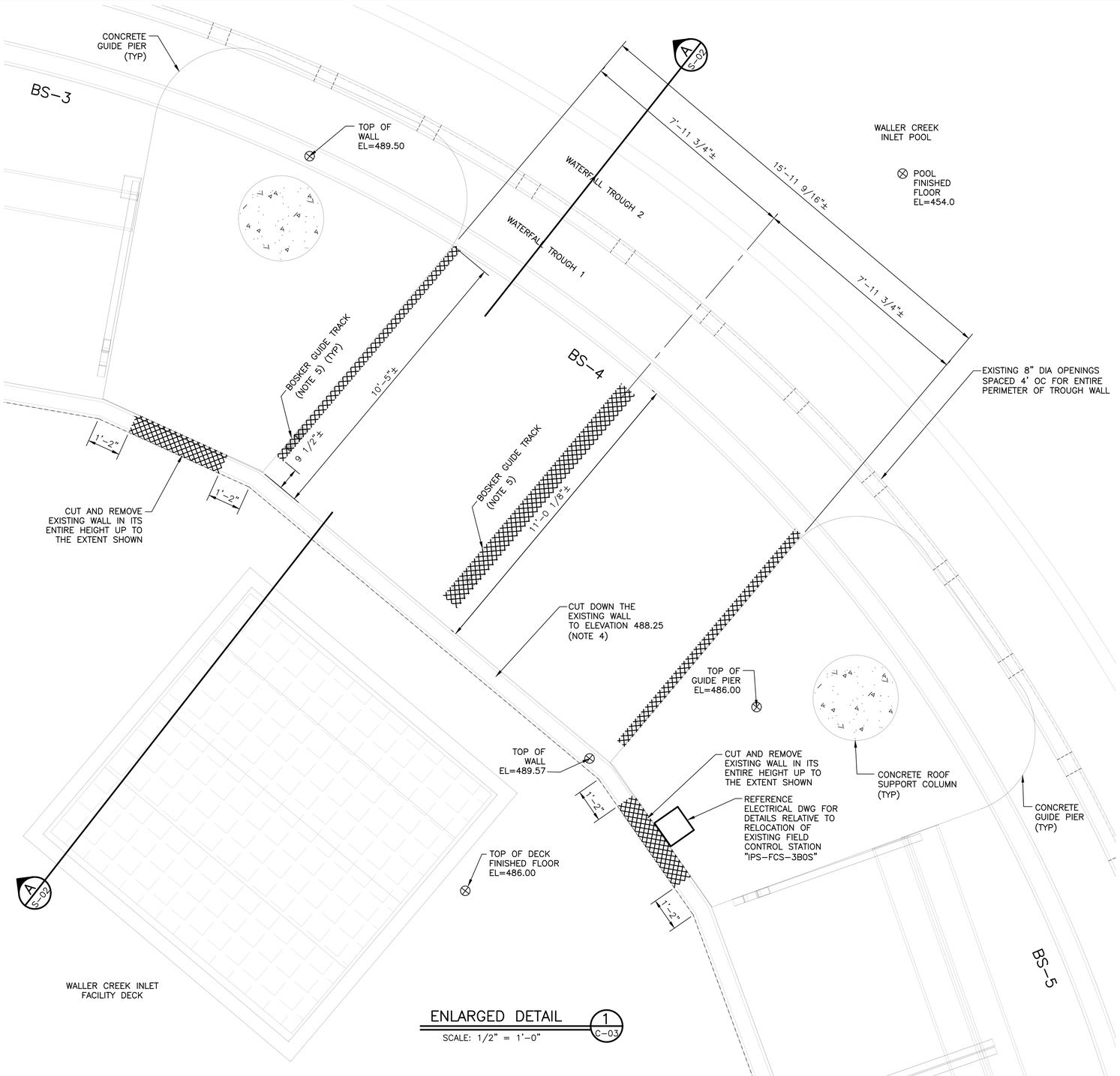
SCREENS PLATFORM

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
CASEY G. WAUTERS
93889
LICENSED
PROFESSIONAL ENGINEER
6/18/21

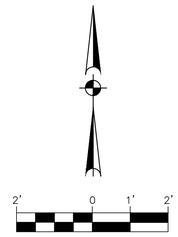
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: CGW	PROJECT No. 60593281
DRAWN: AW	DRAWING No. C-03
CHECKED: JNB	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. 8 OF 43
DATE: JUNE 2021	



ENLARGED DETAIL 1 / C–03

SCALE: 1/2" = 1'–0"



NOTES:

1. THE BACKGROUND INFORMATION ON THIS DRAWING IS BASED ON SURVEY INFORMATION PROVIDED BY LANDMARK SURVEYING, LP ON MARCH 5, 2019, EXISTING RECORD DRAWINGS, AND ENGINEERS FIELD MEASUREMENT. THE PURPOSE OF THE DRAWING IS TO PROVIDE AS–BUILT INFORMATION OF THE EXISTING FACILITY. ACTUAL FIELD CONDITION MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO VERIFY THE INSTALLED CONDITIONS IMPACTED OR IMPACTING THIS WORK.
2. PERFORM ALL REQUIRED FIELD MEASUREMENTS TO VERIFY FABRICATION AND CONSTRUCTION DIMENSIONS PRIOR TO SHUT DOWN OR DEMOLITION OF ANY EXISTING FACILITIES.
3. LIMITED FACILITY OPERATION INTERRUPTION IS ALLOWED AND SHALL BE COORDINATED DIRECTLY WITH THE OWNER. CONTRACTOR SHALL REFER TO CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO VERIFICATION OF EXISTING FACILITIES AND COORDINATION WITH THE OWNER.
4. THE EXISTING CONCRETE WALL TO BE CUT DOWN TO THE ELEVATION SHOWN, TO ALLOW THE INSTALLATION OF PROPOSED CATENARY MECHANISM.
5. REMOVE THE EXISTING GRIPPER GUIDE IN ITS ENTIRETY AND UP TO INLET POOL FLOOR TO AVOID CONFLICT WITH THE PROPOSED CATENARY MECHANISM.
6. COORDINATE WITH OWNER FOR OWNER TO REVISE THE CURRENT FACILITY AUTOMATIC CLEANING PROCEDURE BY DE–SELECTING BAY 4 SCREEN FROM CLEANING BY THE EXISTING BOSKER MECHANISM PRIOR TO CONSTRUCTION AND BEFORE INITIATING ANY WORK IN THE AREA OF BAY 4 SCREEN.
7. EXISTING BAR RACKS NOT SHOWN FOR CLARITY.

LEGEND:

ITEMS TO BE DEMOLISHED

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

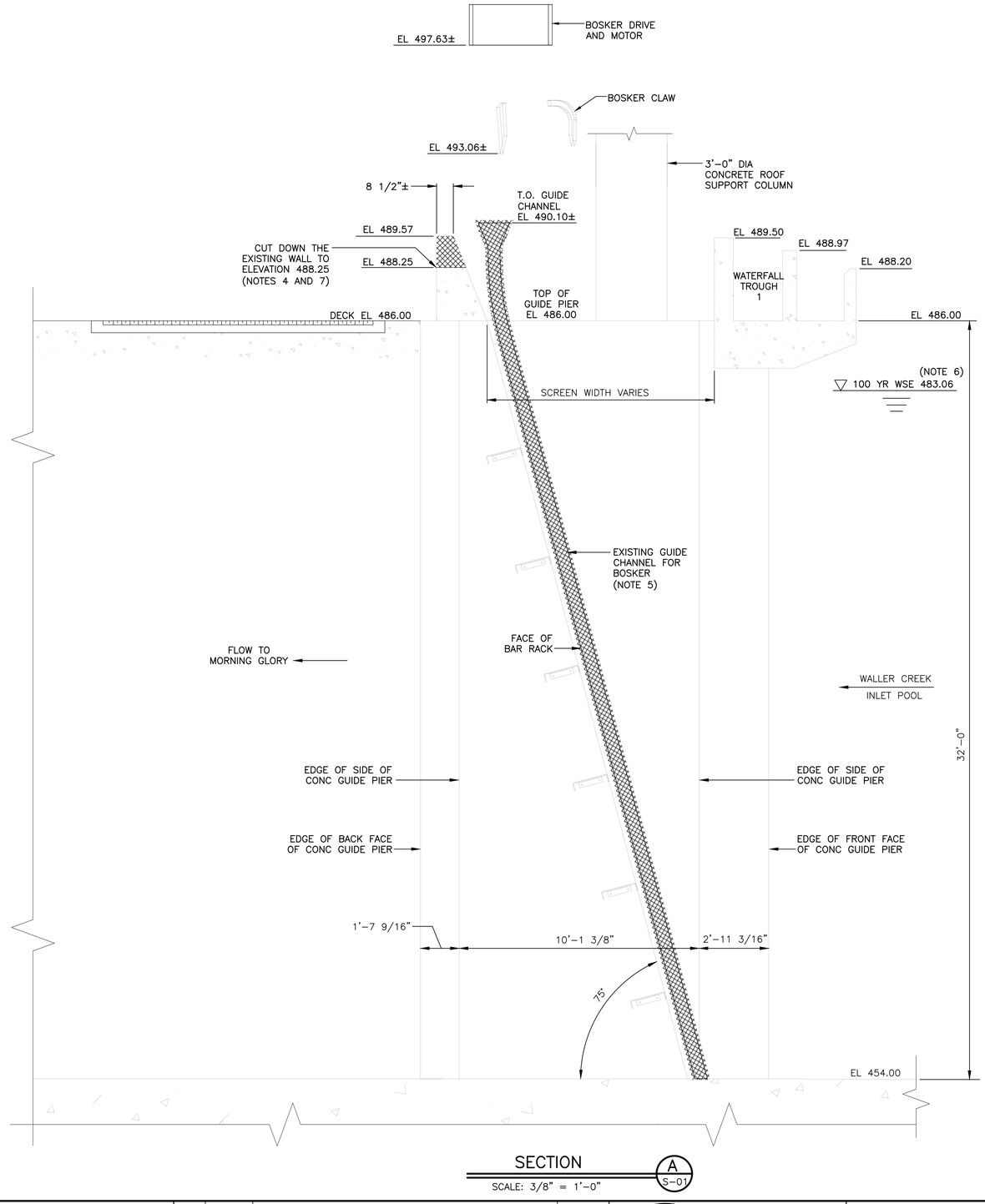
SCREEN BAY No. 4
STRUCTURAL DEMOLITION PLAN VIEW

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHELBY G. ECKOLS
41485
REGISTERED
PROFESSIONAL ENGINEER
6/18/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: SGE	PROJECT No. 60593281
DRAWN: AW	DRAWING No. S-01
CHECKED: CGW	
APPROVED: SGE	SHEET No. 9 OF 43
SCALE: AS NOTED	
DATE: JUNE 2021	



SECTION A S-01

SCALE: 3/8" = 1'-0"

NOTES:

1. THE BACKGROUND INFORMATION ON THIS DRAWING IS BASED ON SURVEY INFORMATION PROVIDED BY LANDMARK SURVEYING, LP ON MARCH 5, 2019, EXISTING RECORD DRAWINGS, AND ENGINEERS FIELD MEASUREMENT. THE PURPOSE OF THE DRAWING IS TO PROVIDE AS-BUILT INFORMATION OF THE EXISTING FACILITY. ACTUAL FIELD CONDITION MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO VERIFY THE INSTALLED CONDITIONS IMPACTED OR IMPACTING THIS WORK.
2. PERFORM ALL REQUIRED FIELD MEASUREMENTS TO VERIFY FABRICATION AND CONSTRUCTION DIMENSIONS PRIOR TO SHUT DOWN OR DEMOLITION OF ANY EXISTING FACILITIES.
3. LIMITED FACILITY OPERATION INTERRUPTION IS ALLOWED AND SHALL BE COORDINATED DIRECTLY WITH THE OWNER. CONTRACTOR SHALL REFER TO CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO VERIFICATION OF EXISTING FACILITIES AND COORDINATION WITH THE OWNER.
4. THE EXISTING CONCRETE WALL TO BE CUT DOWN TO THE ELEVATION SHOWN, TO ALLOW THE INSTALLATION OF PROPOSED CATENARY MECHANISM.
5. REMOVE THE EXISTING GRIPPER GUIDE IN ITS ENTIRETY AND UP TO INLET POOL FLOOR TO AVOID CONFLICT WITH THE PROPOSED CATENARY MECHANISM.
6. 100-YEAR WSE AS SHOWN ON WALLER CREEK TUNNEL PROJECT INLET FACILITY AT WATERLOO PARK, SHEET DW409, DATED MAY 2015.
7. AT ALL CUT CONCRETE SURFACES, EXPOSED REBAR SHALL HAVE CONCRETE AROUND REBAR CHIPPED BACK AND REMOVED TO A DEPTH OF 1-INCH. THE EXPOSED REBAR SHALL BE REMOVED. THE REMAINING VOID SHALL BE FILLED WITH CEMENTITIOUS GROUT.
8. EXISTING BAR RACKS NOT SHOWN FOR CLARITY.

LEGEND:

ITEMS TO BE DEMOLISHED

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

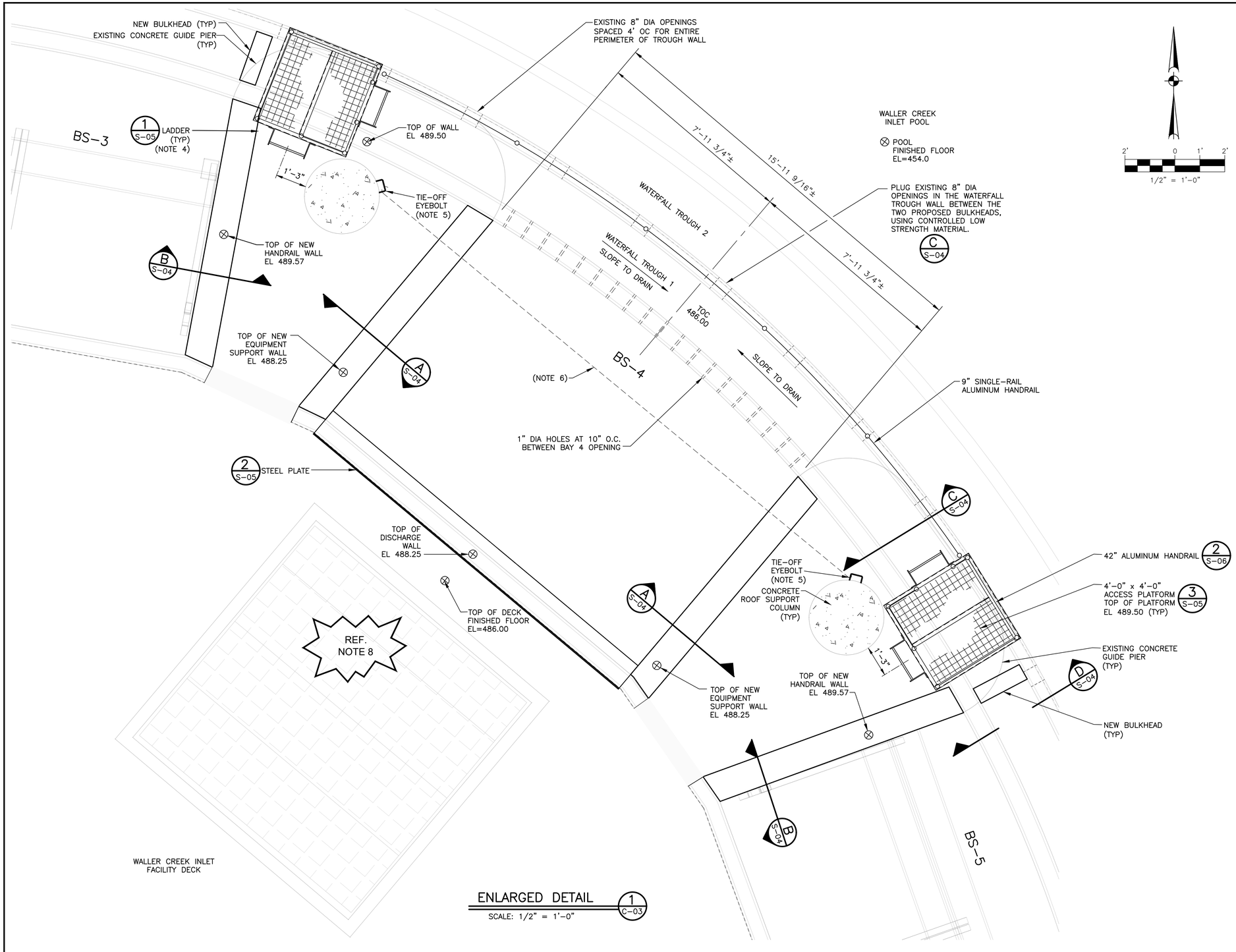
SCREEN BAY No. 4
STRUCTURAL DEMOLITION SECTION

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHELBY G. ECKOLS
41485
REGISTERED PROFESSIONAL ENGINEER
6/18/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: SGE	PROJECT No. 60593281
DRAWN: AW	DRAWING No. S-02
CHECKED: CGW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. 10 OF 43
DATE: JUNE 2021	



ENLARGED DETAIL 1 C-03
SCALE: 1/2" = 1'-0"

NOTES:

1. THE BACKGROUND INFORMATION ON THIS DRAWING IS BASED ON SURVEY INFORMATION PROVIDED BY LANDMARK SURVEYING, LP ON MARCH 5, 2019, EXISTING RECORD DRAWINGS, AND ENGINEERS FIELD MEASUREMENT. THE PURPOSE OF THE DRAWING IS TO PROVIDE AS-BUILT INFORMATION OF THE EXISTING FACILITY. ACTUAL FIELD CONDITION MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO VERIFY THE INSTALLED CONDITIONS IMPACTED OR IMPACTING THIS WORK.
2. PERFORM ALL REQUIRED FIELD MEASUREMENTS TO VERIFY FABRICATION AND CONSTRUCTION DIMENSIONS PRIOR TO SHUT DOWN OR DEMOLITION OF ANY EXISTING FACILITIES.
3. LIMITED FACILITY OPERATION INTERRUPTION IS ALLOWED AND SHALL BE COORDINATED DIRECTLY WITH THE OWNER. CONTRACTOR SHALL REFER TO CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO VERIFICATION OF EXISTING FACILITIES AND COORDINATION WITH THE OWNER.
4. PROPOSED LADDERS ARE TO ACCESS THE GEAR MOTORS, HEAD SHAFT SPROCKET AND DRIVE SPROCKET. FIELD ADJUST AS NEEDED TO PROVIDE A MINIMUM OF 3-FT OF CLEARANCE IN FRONT OF THE LADDER.
5. PROVIDE PERSONAL FALL PROTECTION TIE-OFF ANCHORAGE EYE-BOLTS ON THE EXISTING CONCRETE COLUMNS AT THE LOCATIONS SHOWN AND 7'-6" ABOVE OPERATING FLOOR. EMBED EYEBOLT IN CONCRETE COLUMN ON EACH SIDE OF CATENARY SCREEN BAY. FOR EYEBOLT USE CHICAGO HARDWARE SHOULDER EYEBOLT GALVANIZED 1"x1/4", PREFERABLY WITH THREADS FOR FULL LENGTH OF BOLT 10,000 LBS CAP. USE HILTI HIT-HY 200 ADHESIVE 1" DIA x 9" EMBED. TENSION = 21K, SHEAR = 45K.
6. PROVIDE A CORROSION RESISTANT, RUGGED GALVANIZED CABLE SUITABLE FOR PERMANENT INSTALLATION BETWEEN TWO ANCHORAGE POINTS AS SHOWN, WITH A MINIMUM LOAD CAPACITY OF 350 LBS, TO BE USED WITH A FALL PROTECTION HARNESS. THE SYSTEM TO BE DESIGNED TO MINIMIZE TENSION FORCES TO PROTECT THE STRUCTURE AND MINIMIZE REQUIRED FALL CLEARANCE. PROVIDE WITH A BUILT-IN TURNBUCKLE, ADJUSTABLE TENSIONER. THE SYSTEM TO MEET OSHA 1910.140 AND OSHA 1926.502 REQUIREMENTS (3M DBI-SALA SAYFLINE CABLE HORIZONTAL LIFELINE OR APPROVED EQUAL).
7. EXISTING BAR RACKS NOT SHOWN FOR CLARITY.
8. EXISTING CONCRETE DECK IS REINFORCED WITH POST TENSIONED CABLES. CONTRACTOR SHALL DRILL NO HOLES INTO EXISTING CONCRETE DECK UNLESS EXISTING POST TENSION CABLES HAVE BEEN LOCATED, PROPOSED HOLE LOCATIONS DEFINED, AND LOCATIONS HAVE BEEN REVIEWED AND APPROVED BY OWNER.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

SCREEN BAY No. 4
STRUCTURAL PROPOSED PLAN VIEW

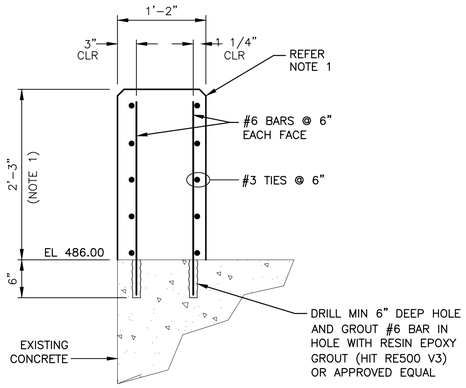
AECOM

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHELBY G. ECKOLS
41485
REGISTERED PROFESSIONAL ENGINEER
6/18/21

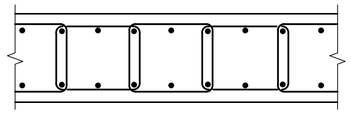
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: SGE	PROJECT No. 60593281
DRAWN: AW	DRAWING No. S-03
CHECKED: CGW	
APPROVED: SGE	SHEET No. 11 OF 43
SCALE: AS NOTED	
DATE: JUNE 2021	



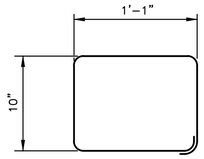
EQUIPMENT SUPPORT WALL SECTION (A / S-03)

SCALE: 1" = 1'-0"



#3 TIE PLACEMENT DETAIL

SCALE: 1" = 1'-0"

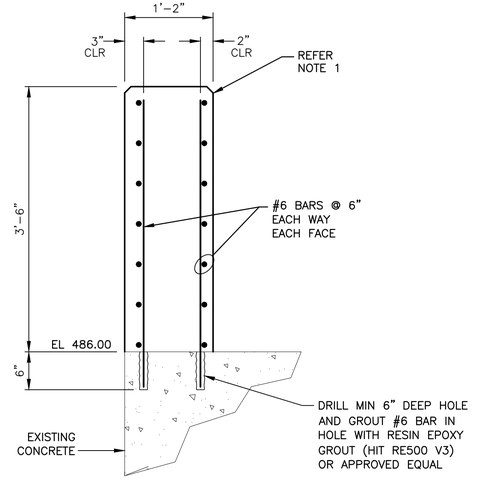


#3 TIE DETAIL

SCALE: 1 1/2" = 1'-0"

NOTES:

1. WALL HEIGHT MAXIMUM IS 3'-0", COORDINATE WITH CATENARY SCREEN SUPPLIER FOR REQUIRED HEIGHT.
2. IN LOCATION WHERE EQUIPMENT SUPPORT WALL TERMINATES AT EXISTING WALL, CONNECT TO EXISTING WALL WITH #5 BARS AT 12" EWEF, DOWEL AND GROUTED INTO WALL.



HANDRAIL WALL SECTION (B / S-03)

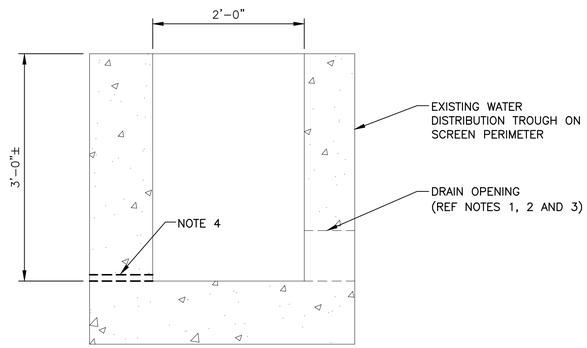
SCALE: 1" = 1'-0"

NOTES:

1. IN LOCATION WHERE HANDRAIL WALL TERMINATES AT AN EXISTING WALL, CONNECT TO EXISTING WALL IN SAME MANNER AS CONNECTING THE FLOOR.

NOTES:

1. CONTRACTOR SHALL PROVIDE 1" CHAMFER TO EDGE OF ALL PLACED CONCRETE.
2. PRIOR TO DRILLING ANY HOLES INTO EXISTING CONCRETE, CONTRACTOR SHALL LOCATE EXISTING REBAR AND POSITION DRILLED HOLES TO AVOID DAMAGE TO EXISTING REBAR.
3. REFERENCE SPECIAL INSPECTIONS PRIOR TO DRILLING ANY HOLES IN OPERATING DECK CONCRETE.

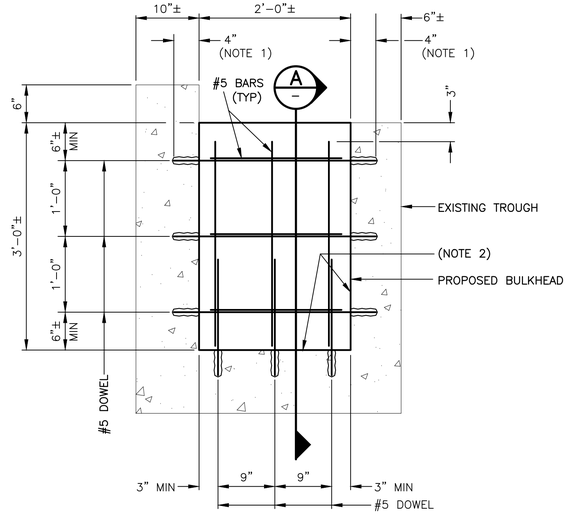


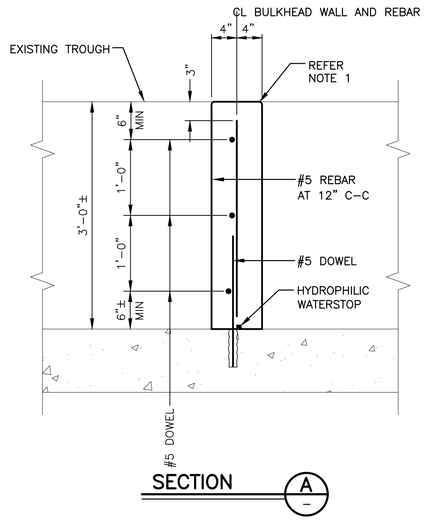
EXISTING TROUGH SECTION WITH DRAIN HOLES (C / S-03)

SCALE: 1" = 1'-0"

NOTES:

1. CONTRACTOR SHALL FILL ALL EXISTING DRAIN OPENINGS IN TROUGH WALL FOR THE LENGTH OF TROUGH DEFNED ON THE DRAWING.
2. PRIOR TO FILLING DRAIN OPENINGS, DRAIN OPENINGS SHALL BE CLEANED OF ALL DEBRIS AND THE INTERIOR SURFACE OF OPENINGS SHALL BE CLEANED WITH WIRE BRUSH TO REMOVE ANY FOREIGN SUBSTANCES.
3. FOLLOWING CLEANING, OPENINGS TO BE FILLED WITH CEMENTITIOUS NON-SHRINK GROUT TO PROVIDE WATER-TIGHT PLUG. GROUT SHALL COMPLETELY FILL DRAIN OPENINGS AND BE FINISHED FLUSH WITH FACE OF INTERIOR AND EXTERIOR WALLS OF TROUGH.
4. FOR LENGTH OF TROUGH DEFINED ON DRAWINGS, DRILL 1-INCH HOLES IN TROUGH WALL NEAR BOTTOM TO FACILITATE DRAINAGE OF RAIN WATER. 1-INCH HOLES TO BE SPACED ON 10-INCH CENTERS. CONTRACTOR SHALL LOCATE EXISTING REBARS IN TROUGH WALL AND COORDINATE WITH OWNER TO DEFINE THE EXACT LOCATIONS OF 1-INCH HOLES TO AVOID EXISTING REBARS.





SECTION (A / -)

EXISTING TROUGH SECTION WITH BULKHEAD (D / S-03)

SCALE: 1" = 1'-0"

NOTES:

1. DRILL HOLE A MINIMUM OF 4-INCH DEEP (OR HALF OF WALL THICKNESS) AND EPOXY ANCHOR #5 REBAR INTO THE HOLE. LOCATE HOLES AT SPACING SHOWN.
2. INSTALL HYDROPHILIC WATERSTOP MATERIAL AT CENTER OF BULKHEAD WALL, AROUND WALL PERIMETER WITH EXISTING TROUGH.
3. PROVIDE MINIMUM LAP OF 12-INCH ON REBAR.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

STRUCTURAL DETAILS
(SHEET 1 OF 3)

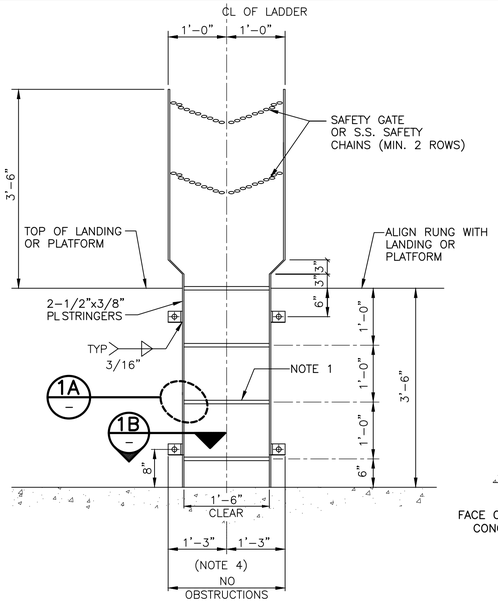
AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHELBY G. ECKOLS
41485
REGISTERED PROFESSIONAL ENGINEER
6/18/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: SGE	PROJECT No. 60593281
DRAWN: AW	DRAWING No. S-04
CHECKED: JNB	
APPROVED: SGE	SHEET No. 12 OF 43
SCALE: AS NOTED	
DATE: JUNE 2021	

E:\60593281 WALLER CREEK CATENARY PILOT\900-WORKINGDOCS-CAD\910 CADD\20-SHEETS\S-04.DWG BY: GADHIAT DATE: 6/16/2021 9:51 AM

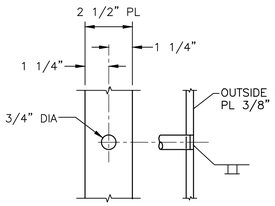


LADDER NOTES:

1. LADDER RUNGS ARE TO BE KNURLED, DIMPLED CORRUGATED, COATED w/SKID-RESISTANT MATERIAL OR OTHERWISE TREATED TO MINIMIZE SLIPPING.
2. ALL MATERIALS TO BE TYPE 304 OR 304L STAINLESS STEEL.
3. LADDER TO MEET OSHA REQUIREMENTS.
4. INSIDE THE TROUGH WHERE THE MINIMUM REQUIRED CLEARANCE IS NOT AVAILABLE, PROVIDE WELDED STEEL GALVANIZED DOCK LADDER WITH FINAL POSITIONING BY CONTRACTOR.

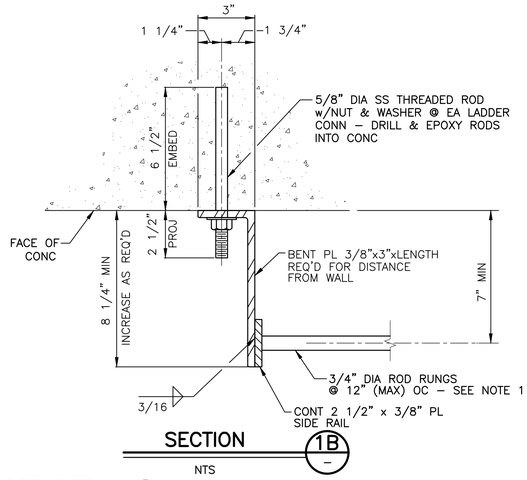
TYPICAL LADDER DETAIL 1 / S-03

NTS



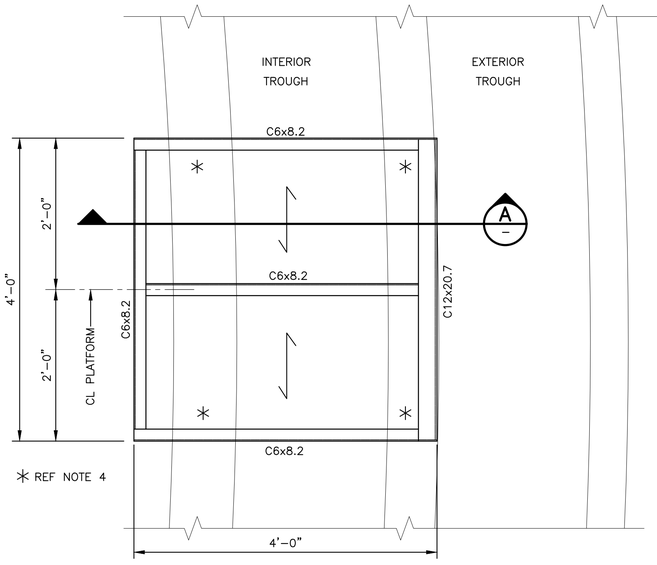
DETAIL 1A / –

NTS



SECTION 1B / –

NTS

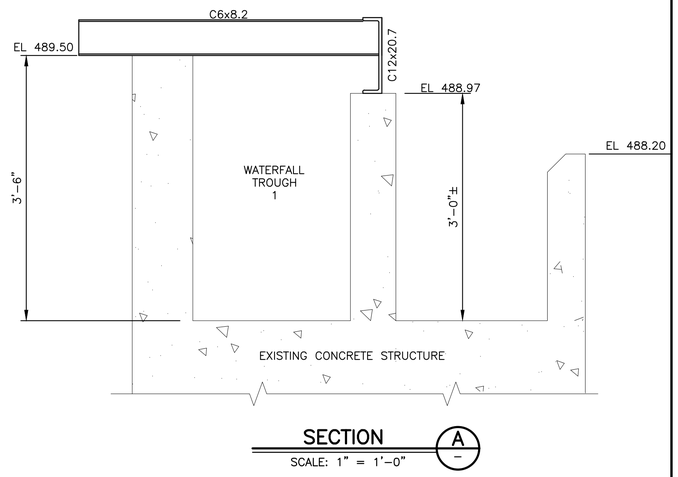


NOTES:

1. PLATFORM TO BE FABRICATED WITH C6x8.2 AND C12x20.7 MEMBERS.
2. ALL CHANNEL TO CHANNEL CONNECTIONS SHALL BE STANDARD SHEAR CONNECTIONS WITH (2) 3/4" DIA BOLT IN EACH CHANNEL. ALTERNATIVELY, CHANNEL TO CHANNEL CONNECTIONS MAY BE A 1/4" FILLET SEAL WELD. HOT DIP GALV ALL COMPONENTS.
3. INSTALL 1/2" THICK GRATING GALVANIZED, SPAN AS SHOWN.
4. ANCHOR PLATFORM FRAME AT FOUR LOCATIONS, TO TOP OF TROUGH WALLS. ANCHOR SHALL CONSIST OF A DRILLED HOLE IN TOP OF CONCRETE WALL WITH 3/4" DIA BOLT EPOXY ANCHORED INTO HOLE PER MANUFACTURER'S RECOMMENDATION.
5. INSTALL HANDRAIL AROUND PERIMETER OF PLATFORM. USE SIDE MOUNTED HANDRAIL. USE ALUMINUM HANDRAIL.

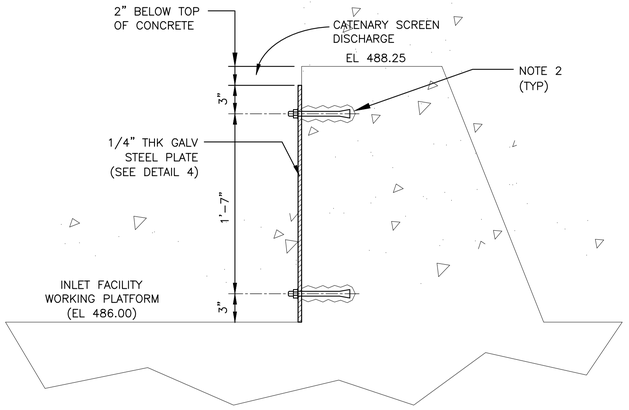
ACCESS PLATFORM DETAIL 3 / S-03

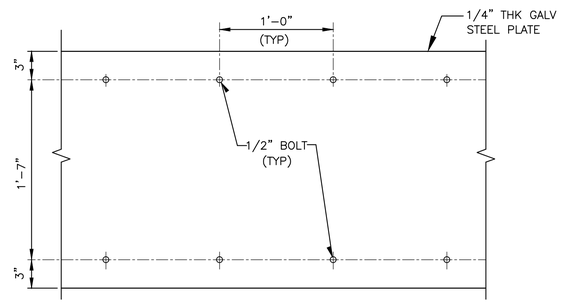
SCALE: 1" = 1'-0"



SECTION A / –

SCALE: 1" = 1'-0"





DETAIL 4 / –

SCALE: 1 1/2" = 1'-0"

NOTES:

1. STEEL PLATE TO BE ASTM A36 CARBON STEEL PLATE, HOT DIPPED GALV AFTER FABRICATION.
2. DRILL HOLES AND INSTALL 1/2" DIA ANCHOR, PER EPOXY ANCHOR MANUFACTURER'S RECOMMENDATION.
3. BOLT HOLES IN PLATE TO BE SIZED TO ALLOW FIT-UP TOLERANCE FOR ANCHOR BOLT INSTALLATION.
4. INSTALL PLATE AT LOCATIONS SHOWN ON PLAN DRAWINGS.

STEEL PLATE DETAIL 2 / S-03

SCALE: 1 1/2" = 1'-0"

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

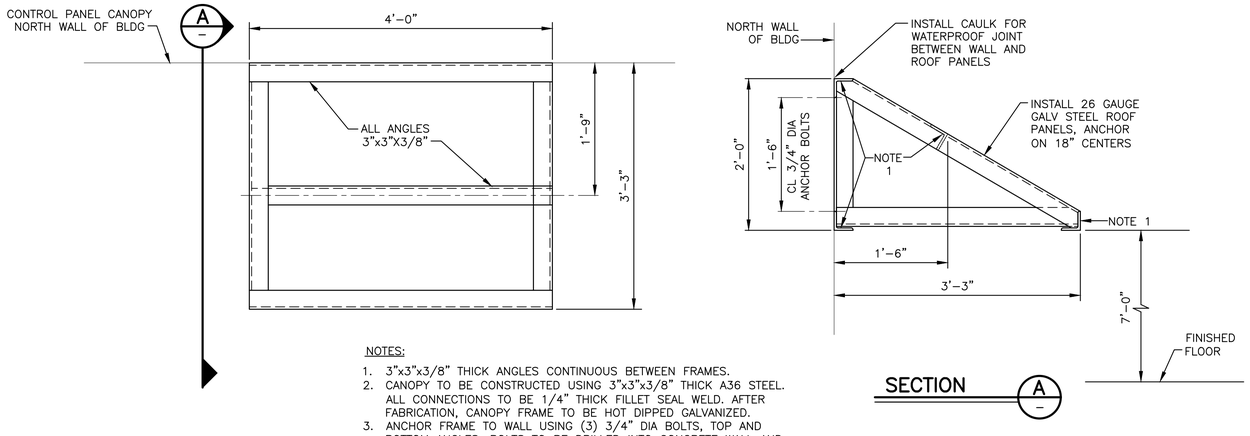
STRUCTURAL DETAILS
(SHEET 2 OF 3)

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHELBY G. ECKOLS
41485
REGISTERED
PROFESSIONAL ENGINEER
6/18/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: SGE	PROJECT No. 60593281
DRAWN: AW	DRAWING No. S-05
CHECKED: JNB	
APPROVED: SGE	SHEET No. 13 OF 43
SCALE: AS NOTED	
DATE: JUNE 2021	



NOTES:

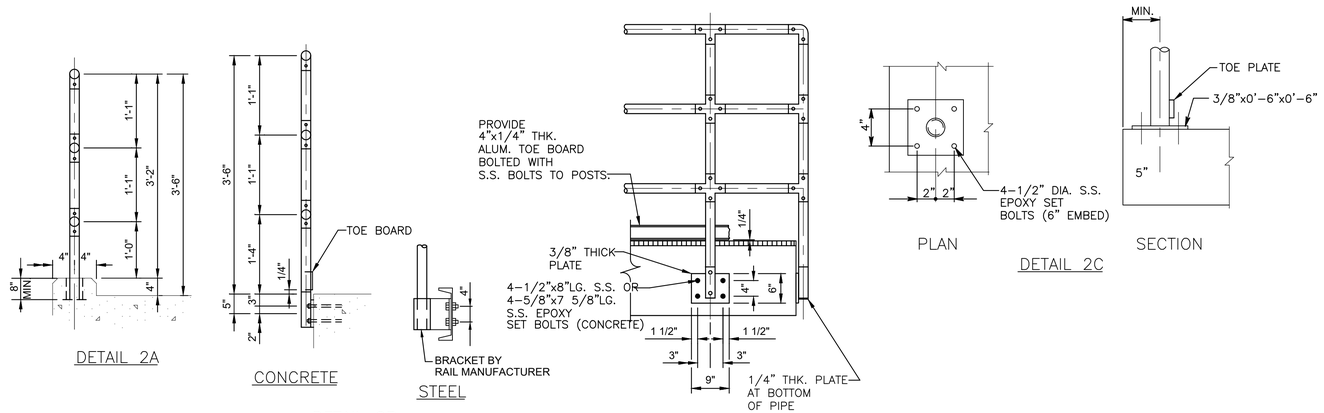
1. 3"x3"x3/8" THICK ANGLES CONTINUOUS BETWEEN FRAMES.
2. CANOPY TO BE CONSTRUCTED USING 3"x3"x3/8" THICK A36 STEEL. ALL CONNECTIONS TO BE 1/4" THICK FILLET SEAL WELD. AFTER FABRICATION, CANOPY FRAME TO BE HOT DIPPED GALVANIZED.
3. ANCHOR FRAME TO WALL USING (3) 3/4" DIA BOLTS, TOP AND BOTTOM ANGLES. BOLTS TO BE DRILLED INTO CONCRETE WALL AND EPOXY GROUTED TO DEVELOP PULL TENSILE LOAD CAPACITY.

SECTION A

CONTROL PANEL CANOPY DETAIL

1 / C-03

SCALE: 1" = 1'-0"



HANDRAIL DETAIL

2 / S-03

NTS

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

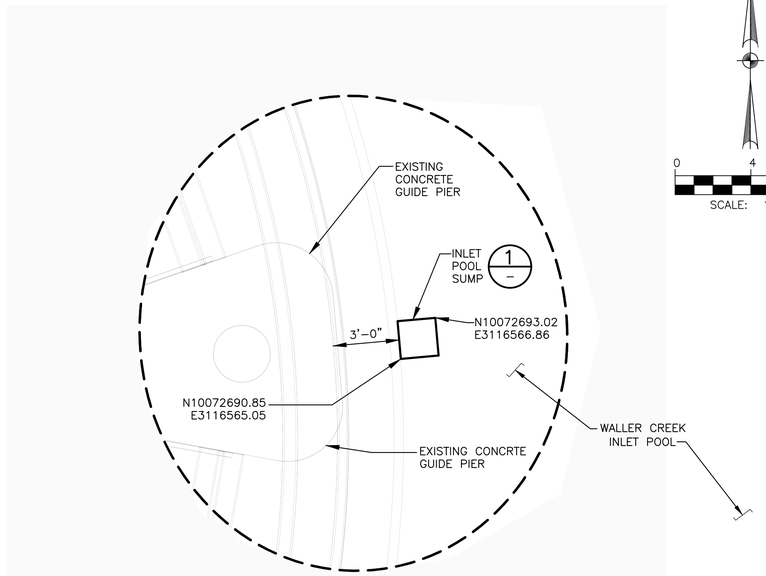
STRUCTURAL DETAILS
(SHEET 3 OF 3)

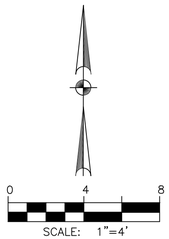
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHELBY G. ECKOLS
41485
REGISTERED
PROFESSIONAL ENGINEER
6/18/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: SGE	PROJECT No. 60593281
DRAWN: AW	DRAWING No. S-06
CHECKED: JNB	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. 14 OF 43
DATE: JUNE 2021	



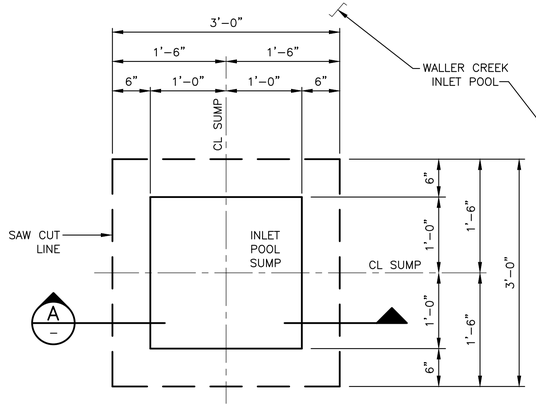


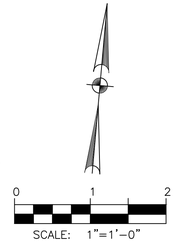
INLET POOL SUMP (2 / C–03)

SCALE: 1/4" = 1'–0"

NOTES:

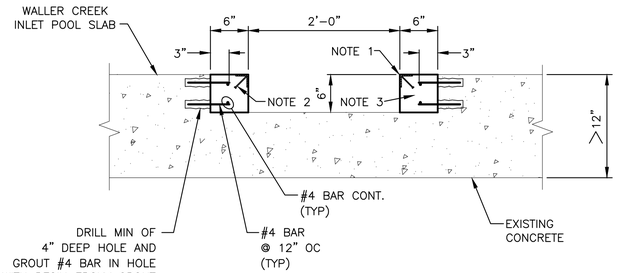
1. WALLER CREEK POOL RECEIVES SMALL AMOUNT OF FLOW DURING DRY WEATHER CONDITIONS. CONTRACTOR SHALL DESIGN DEWATERING SYSTEM IN COMPLIANCE WITH PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA INCLUDED IN CONTRACT DOCUMENTS TO KEEP THE WORK AREA DRY AS REQUIRED DURING CONSTRUCTION ACTIVITIES INSIDE WALLER CREEK POOL. CONTRACTOR TO INSTALL DEWATERING SYSTEM INSIDE POOL WITHOUT DAMAGING EXISTING STRUCTURES.
2. DIMENSIONS SHOWN ARE FINISHED DIMENSIONS OF SUMP.
3. CONFIRM THICKNESS OF INLET POOL SLAB BY DRILLING TWO 1" DIAMETER HOLES IN CONCRETE SLAB. HOLES TO BE IN DIAGONALLY OPPOSITE CORNERS OF THE SUMP.
4. IF INLET POOL SLAB IS ⩾12" THICK,
   a) SAW CUT SLAB 6" OUTSIDE OF SUMP DIMENSIONS (36"X36") WITH SAW CUT 6" DEEP.
   b) CHIP OUT AND REMOVE CONCRETE, WITHIN SAW CUT AREA TO A DEPTH OF 6".
   c) CHIP SUMP BOTTOM TO REMOVE SURFACE IRREGULARITIES.
5. IF INLET POOL SLAB IS <12" THICK,
   a) SAW CUT SLAB 6" OUTSIDE OF SUMP DIMENSIONS (36"X36") WITH SAW CUT FULL DEPTH OF SLAB.
   b) CHIP OUT AND REMOVE CONCRETE WITHIN SAW CUT AREA TO FILL DEPTH OF SLAB.
   c) COMPLETE SUMP CONSTRUCTION PER DETAIL.





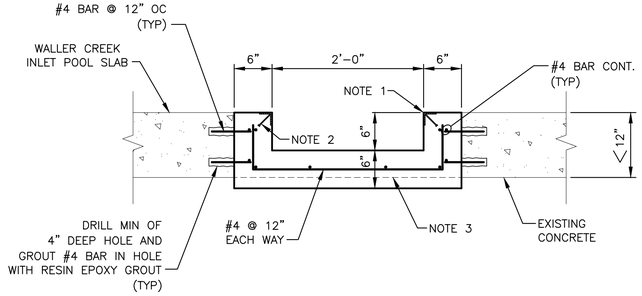
INLET POOL SUMP PLAN (1 / –)

SCALE: 1" = 1'–0"



SECTION (INLET POOL SLAB ⩾12" THICK) (A / –)

SCALE: 1" = 1'–0"



NOTES:

1. CONTINUOUS TYP 304L SS EMBED ANGLE FRAME FABRICATED FROM L2X2X1/4. MITER AND WELD EMBED ANGLES AT CORNERS. NAIL HOLES (1/8 INCH MAX). MAY BE PUNCHED IN THE ANGLES AT 18" OC FOR SUPPORTING THE ANGLE FRAMES.
2. SHOP WELD 3/8"X4" LONG TYPE 304L SS HCA'S AT 18" OC MAX AROUND THE ANGLE FRAME PERIMETER.
3. PLACE NON–SHRINK CEMENTITIOUS GROUT IN THE OVER EXCAVATED SPACE.

SECTION (INLET POOL SLAB <12" THICK) (A / –)

SCALE: 1" = 1'–0"

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

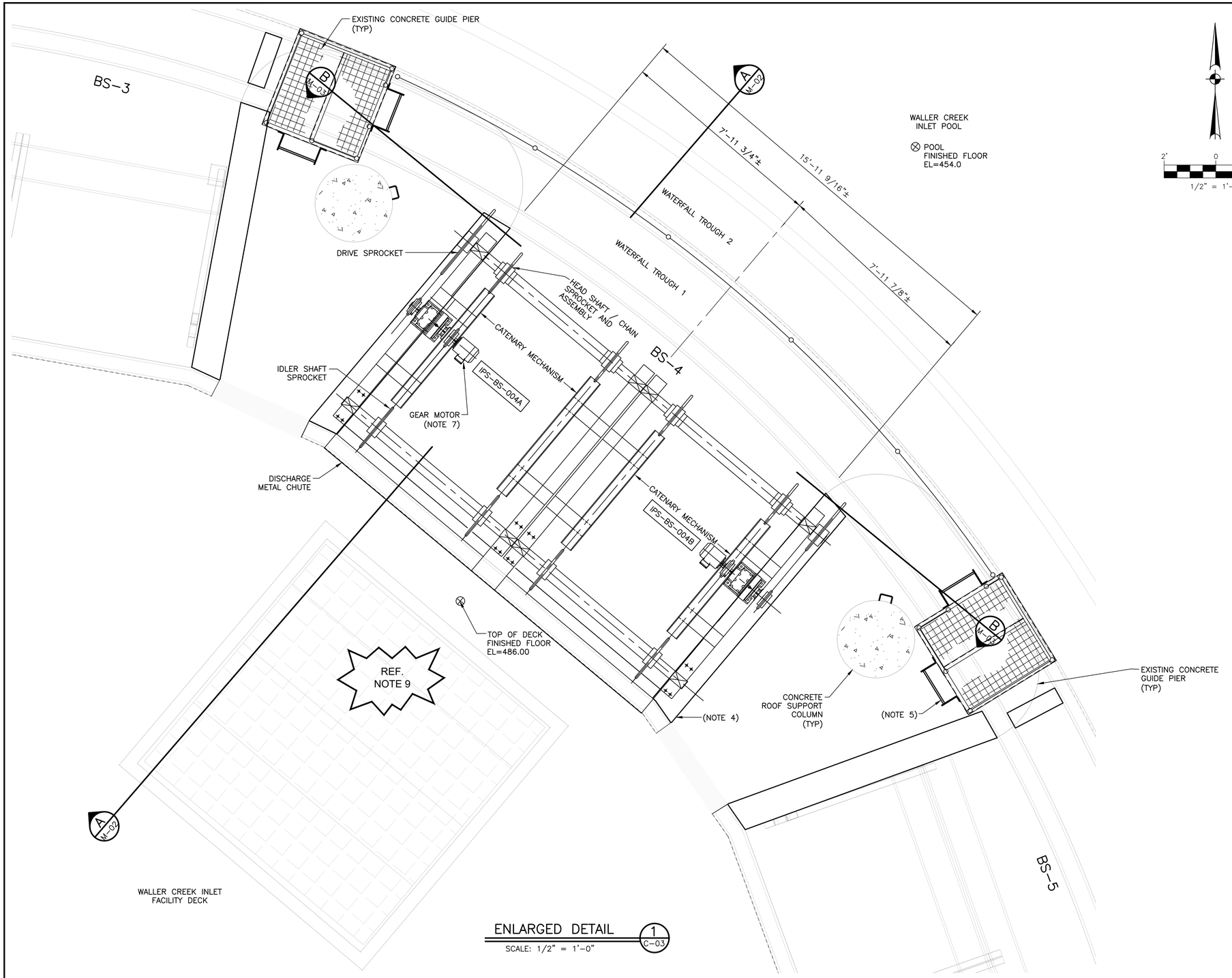
INLET POOL SUMP
STRUCTURAL PLAN AND SECTIONS

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHELBY G. ECKOLS
41485
REGISTERED
PROFESSIONAL ENGINEER
6/16/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: SGE	PROJECT No. 60593281
DRAWN: AW	DRAWING No. S-07
CHECKED: JNB	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. 15 OF 43
DATE: JUNE 2021	



ENLARGED DETAIL 1 C-03
SCALE: 1/2" = 1'-0"

NOTES:

1. THE BACKGROUND INFORMATION ON THIS DRAWING IS BASED ON SURVEY INFORMATION PROVIDED BY LANDMARK SURVEYING, LP ON MARCH 5, 2019, EXISTING RECORD DRAWINGS, AND ENGINEERS FIELD MEASUREMENT. THE PURPOSE OF THE DRAWING IS TO PROVIDE AS-BUILT INFORMATION OF THE EXISTING FACILITY. ACTUAL FIELD CONDITION MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO VERIFY THE INSTALLED CONDITIONS IMPACTED OR IMPACTING THIS WORK.
2. PERFORM ALL REQUIRED FIELD MEASUREMENTS TO VERIFY FABRICATION AND CONSTRUCTION DIMENSIONS PRIOR TO SHUT DOWN OR DEMOLITION OF ANY EXISTING FACILITIES.
3. LIMITED FACILITY OPERATION INTERRUPTION IS ALLOWED AND SHALL BE COORDINATED DIRECTLY WITH THE OWNER. CONTRACTOR SHALL REFER TO CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO VERIFICATION OF EXISTING FACILITIES AND COORDINATION WITH THE OWNER.
4. A NEW SIDE WALL IS PROPOSED TO SUPPORT THE NEW CATENARY MECHANISM. REFER TO STRUCTURAL DRAWINGS FOR DETAILS. WALL HEIGHT MAY BE INCREASED AS NEEDED TO PROVIDE THE MECHANISM SUPPORT, WHILE COMPLYING WITH MAXIMUM MECHANISM HEIGHT REQUIREMENTS SPECIFIED HEREIN.
5. PROPOSED LADDERS ARE TO ACCESS THE GEAR MOTORS, HEAD SHAFT SPROCKET AND DRIVE SPROCKET. FIELD ADJUST AS NEEDED TO PROVIDE A MINIMUM OF 3-FT OF CLEARANCE IN FRONT OF THE LADDER.
6. COORDINATE WITH OWNER FOR OWNER TO REVISE THE CURRENT FACILITY AUTOMATIC CLEANING PROCEDURE BY DE-SELECTING BAY 4 SCREEN FROM CLEANING BY THE EXISTING BOSKER MECHANISM PRIOR TO CONSTRUCTION AND BEFORE INITIATING ANY WORK IN THE AREA OF BAY 4 SCREEN.
7. ADJUST THE LOCATION OF GEAR MOTOR IN THE FIELD TO PROVIDE A MINIMUM OF 1-FT CLEARANCE TO THE EXISTING ROOF SUPPORT COLUMN. INSTALL GEAR MOTOR WITH THE SHEAR PIN SIDE CLOSEST TO THE ACCESS PLATFORM FOR QUICK ACCESS FOR REPLACEMENT.
8. EXISTING BAR RACKS NOT SHOWN FOR CLARITY.
9. EXISTING CONCRETE DECK IS REINFORCED WITH POST TENSIONED CABLES. CONTRACTOR SHALL DRILL NO HOLES INTO EXISTING CONCRETE DECK UNLESS EXISTING POST TENSION CABLES HAVE BEEN LOCATED, PROPOSED HOLE LOCATIONS DEFINED, AND LOCATIONS HAVE BEEN REVIEWED AND APPROVED BY OWNER.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

SCREEN BAY No. 4
PROPOSED MECHANICAL PLAN VIEW

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

BEHNOUSH A. YEGANEH 106391 LICENSED PROFESSIONAL ENGINEER 6/16/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: BAY	PROJECT No. 60593281
DRAWN: AW	DRAWING No. M-01
CHECKED: CGW	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. 16 OF 43
DATE: JUNE 2021	

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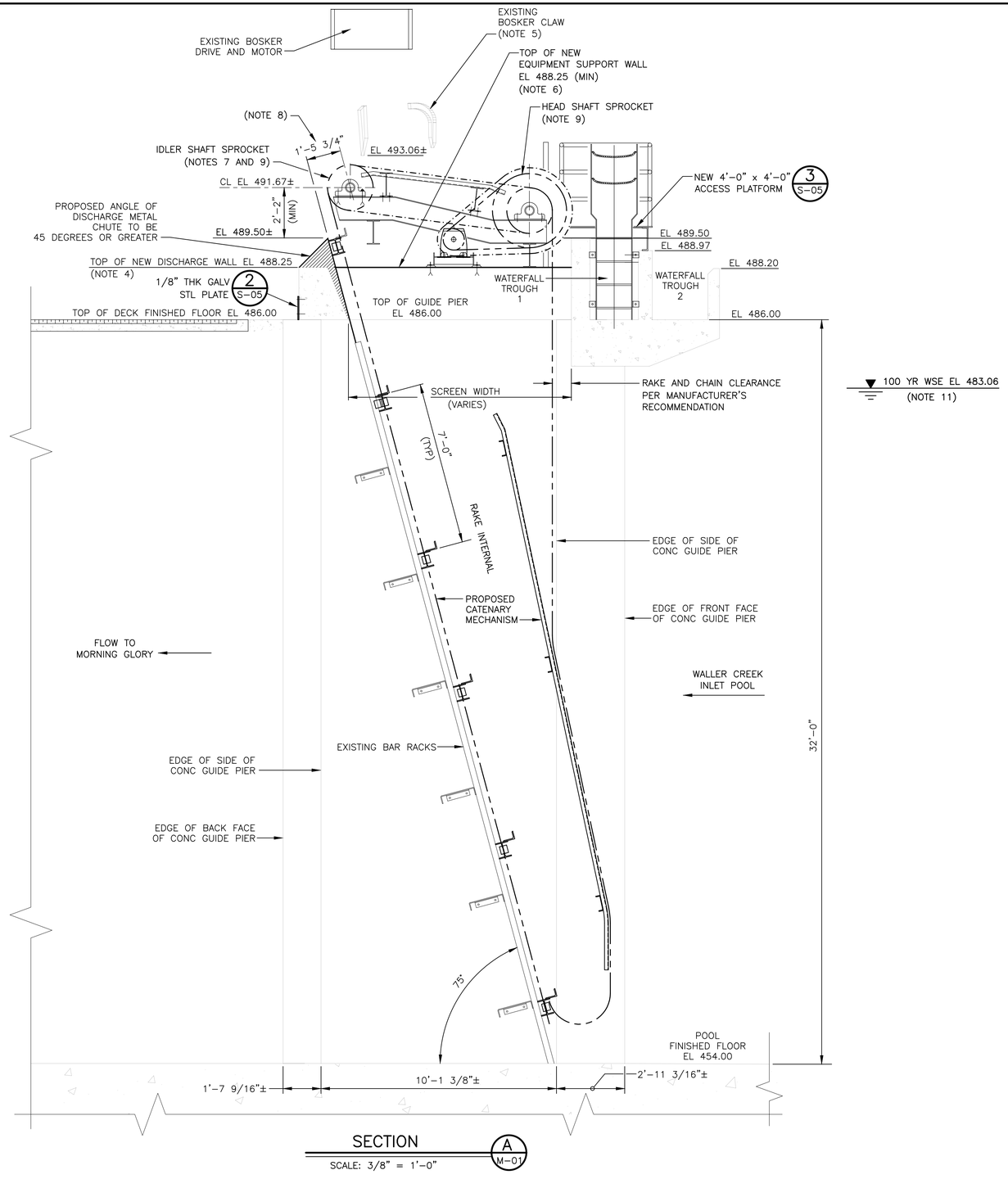

SECTION A M-01

SCALE: 3/8" = 1'-0"

NOTES:

1. THE BACKGROUND INFORMATION ON THIS DRAWING IS BASED ON SURVEY INFORMATION PROVIDED BY LANDMARK SURVEYING, LP ON MARCH 5, 2019, EXISTING RECORD DRAWINGS, AND ENGINEERS FIELD MEASUREMENT. THE PURPOSE OF THE DRAWING IS TO PROVIDE AS–BUILT INFORMATION OF THE EXISTING FACILITY. ACTUAL FIELD CONDITION MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO VERIFY THE INSTALLED CONDITIONS IMPACTED OR IMPACTING THIS WORK.
2. PERFORM ALL REQUIRED FIELD MEASUREMENTS TO VERIFY FABRICATION AND CONSTRUCTION DIMENSIONS PRIOR TO SHUT DOWN OR DEMOLITION OF ANY EXISTING FACILITIES.
3. LIMITED FACILITY OPERATION INTERRUPTION IS ALLOWED AND SHALL BE COORDINATED DIRECTLY WITH THE OWNER. CONTRACTOR SHALL REFER TO CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO VERIFICATION OF EXISTING FACILITIES AND COORDINATION WITH THE OWNER.
4. THE EXISTING CONCRETE WALL TO BE CUT DOWN TO THE ELEVATION SHOWN, TO ALLOW THE INSTALLATION OF PROPOSED CATENARY MECHANISM, WHILE ALLOWING FOR STORAGE OF SCREENINGS.
5. THE PROPOSED CATENARY MECHANISM AT THE ELEVATION SHOWN WILL POTENTIALLY BE IN CONFLICT WITH THE OPERATION OF EXISTING BOSKER CLAW. MANUAL INTERVENTION MAY BE REQUIRED TO LIFT BOSKER CLAW TO CREATE CLEARANCE ABOVE CATENARY MECHANISM, AS REQUIRED.
6. A NEW WALL IS PROPOSED TO SUPPORT THE NEW CATENARY MECHANISM. REFER TO STRUCTURAL DRAWINGS FOR DETAILS. WALL HEIGHT MAY BE INCREASED AS NEEDED TO PROVIDE THE MECHANISM SUPPORT, WHILE COMPLYING WITH MAXIMUM MECHANISM HEIGHT REQUIREMENTS SPECIFIED HEREIN.
7. ADJUST THE CENTERLINE ELEVATION OF IDLER SPROCKET AND SHAFT TO PROVIDE A MINIMUM OF 2–FT OF CLEARANCE ABOVE DISCHARGE CHUTE.
8. MAINTAIN THE SPECIFIED DISTANCE FROM CENTER OF SHAFT / SPROCKET TO THE DEAD PLATE OR DISCHARGE SURFACE, OR AS RECOMMENDED BY MANUFACTURER, TO ALLOW THE RAKES TO RIDE UP THE DISCHARGE PLATE AND ALLOW DEBRIS TO FALL OFF AFTER EXITING THE DISCHARGE.
9. THE MAXIMUM ELEVATION AT THE HIGHEST POINT ON IDLER AND HEAD SPROCKETS SHALL BE LIMITED TO ELEV 492.67.
10. EXISTING BAR RACKS NOT SHOWN FOR CLARITY.
11. 100–YEAR WSE AS SHOWN ON WALLER CREEK TUNNEL PROJECT INLET FACILITY AT WATERLOO PARK, SHEET DW409, DATED MAY 2015.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

SCREEN BAY No. 4
PROPOSED MECHANICAL SECTION

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

BEHNOUSH A. YEGANEH 106391 LICENSED PROFESSIONAL ENGINEER 6/18/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DESIGNED: BAY	PROJECT No. 60593281
DRAWN: AW	DRAWING No. M-02
CHECKED: JNB	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. 17 OF 43
DATE: JUNE 2021	

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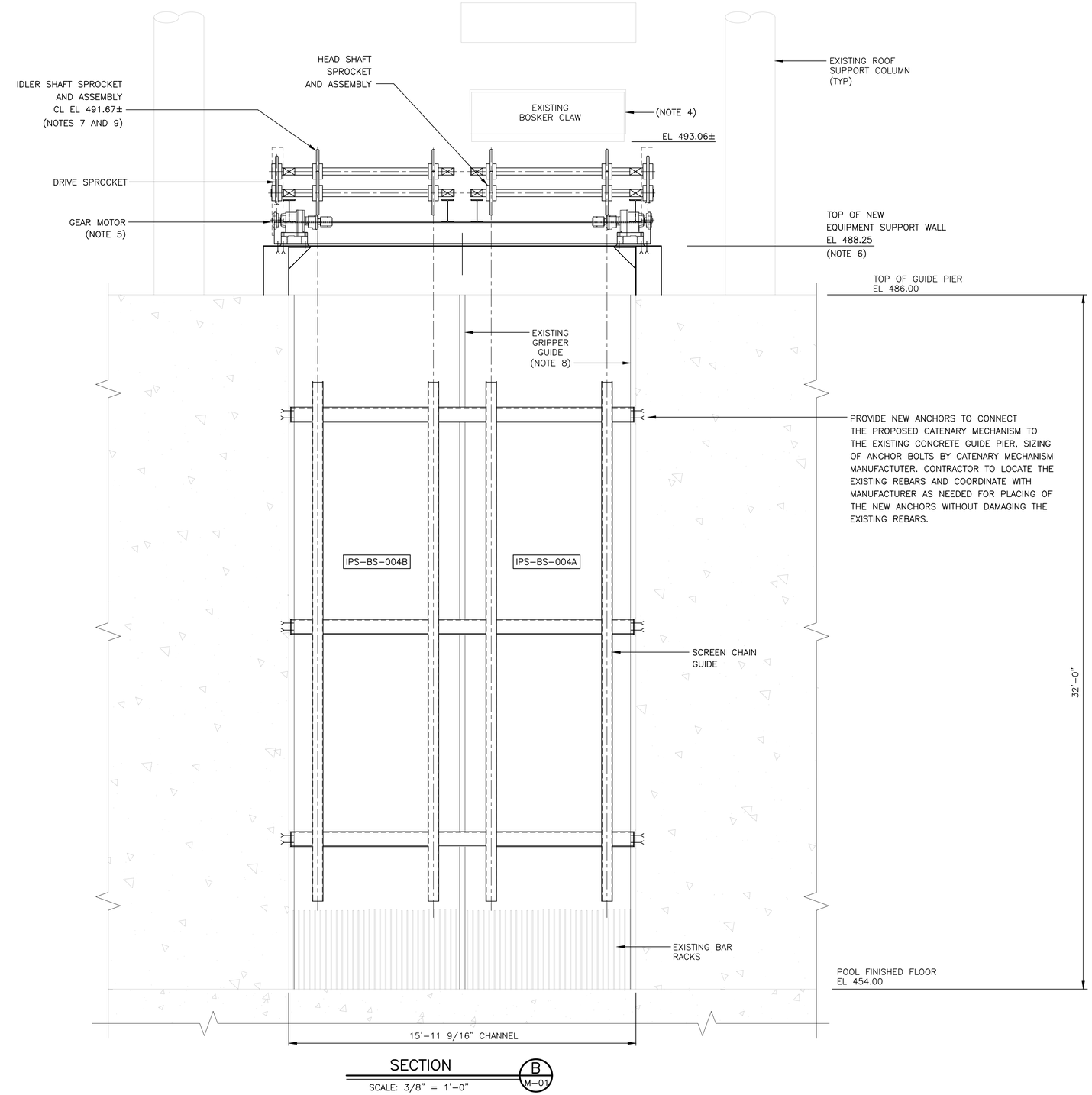

SECTION B M-01

SCALE: 3/8" = 1'-0"

NOTES:

1. THE BACKGROUND INFORMATION ON THIS DRAWING IS BASED ON SURVEY INFORMATION PROVIDED BY LANDMARK SURVEYING, LP ON MARCH 5, 2019, EXISTING RECORD DRAWINGS, AND ENGINEERS FIELD MEASUREMENT. THE PURPOSE OF THE DRAWING IS TO PROVIDE AS-BUILT INFORMATION OF THE EXISTING FACILITY. ACTUAL FIELD CONDITION MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO VERIFY THE INSTALLED CONDITIONS IMPACTED OR IMPACTING THIS WORK.
2. PERFORM ALL REQUIRED FIELD MEASUREMENTS TO VERIFY FABRICATION AND CONSTRUCTION DIMENSIONS PRIOR TO SHUT DOWN OR DEMOLITION OF ANY EXISTING FACILITIES.
3. LIMITED FACILITY OPERATION INTERRUPTION IS ALLOWED AND SHALL BE COORDINATED DIRECTLY WITH THE OWNER. CONTRACTOR SHALL REFER TO CONTRACT DOCUMENTS FOR RESPONSIBILITIES RELATIVE TO VERIFICATION OF EXISTING FACILITIES AND COORDINATION WITH THE OWNER.
4. THE PROPOSED CATENARY MECHANISM AT THE ELEVATION SHOWN WILL POTENTIALLY BE IN CONFLICT WITH THE OPERATION OF EXISTING BOSKER CLAW. MANUAL INTERVENTION MAY BE REQUIRED TO LIFT BOSKER CLAW TO CREATE CLEARANCE ABOVE CATENARY MECHANISM, AS REQUIRED.
5. ADJUST THE LOCATION OF GEAR MOTOR IN THE FIELD TO PROVIDE A MINIMUM OF 1-FT CLEARANCE TO THE EXISTING ROOF SUPPORT COLUMNS. INSTALL GEAR MOTOR WITH SHEAR PIN SIDE CLOSEST TO THE ACCESS PLATFORM FOR QUICK ACCESS FOR REPLACEMENT.
6. A NEW WALL IS PROPOSED TO SUPPORT THE NEW CATENARY MECHANISM. REFER TO STRUCTURAL DRAWINGS FOR DETAILS. WALL HEIGHT MAY BE INCREASED AS NEEDED TO PROVIDE THE MECHANISM SUPPORT, WHILE COMPLYING WITH MAXIMUM MECHANISM HEIGHT REQUIREMENTS SPECIFIED HEREIN.
7. ADJUST THE CENTERLINE ELEVATION OF IDLER SPROCKET AND SHAFT TO PROVIDE A MINIMUM OF 2-FT OF CLEARANCE ABOVE DISCHARGE CHUTE.
8. REMOVE THE EXISTING GRIPPER GUIDE IN ITS ENTIRETY AND UP TO INLET POOL FLOOR TO AVOID CONFLICT WITH THE PROPOSED CATENARY MECHANISM.
9. THE MAXIMUM ELEVATION AT THE HIGHEST POINT ON IDLER AND HEAD SPROCKETS SHALL BE LIMITED TO ELEV 492.67.
10. COORDINATE WITH OWNER FOR OWNER TO REVISE THE CURRENT FACILITY AUTOMATIC CLEANING PROCEDURE BY DE-SELECTING BAY 4 SCREEN FROM CLEANING BY THE EXISTING BOSKER MECHANISM PRIOR TO CONSTRUCTION AND BEFORE INITIATING ANY WORK IN THE AREA OF BAY 4 SCREEN.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

SCREEN BAY No.4
PROPOSED MECHANICAL SECTION

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

BEHNOUSH A. YEGANEH 106391 LICENSED PROFESSIONAL ENGINEER 5/18/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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DESIGNED: BAY	PROJECT No. 60593281
DRAWN: AW	DRAWING No. M-03
CHECKED: JNB	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. 18 OF 43
DATE: JUNE 2021	

ELECTRICAL DRAWING SYMBOLS

LP–1,3 — HOMERUN TO PANEL. CIRCUIT NUMBERS INDICATED. SHORT HASH MARKS INDICATE PHASE WIRES; LONG HASH MARK INDICATES NEUTRAL WIRE; MARK INDICATES EQUIPMENT GROUND WIRE; INDICATES ISOLATED GROUND WIRE; S INDICATES SWITCHED WIRE. NUMBER OF ARROWHEADS CORRESPONDS TO NUMBER OF CIRCUITS.

3/4"–3#10(P), 1#10(G) — CONDUIT AND WIRE DESIGNATION. E.G. 3/4" CONDUIT, 3#10 POWER WIRES, 1#10 GROUND WIRE.
(P) POWER (N) NEUTRAL
(G) GROUND (SH) SPACE HEATER
(C) CONTROL (IG) ISOLATED GROUND
(I) INSTRUMENTATION

GROUND ROD (3/4" DIA. X 10'–0" LG.)

GROUND WIRE

OR — CONDUIT BODY

J OR J — JUNCTION BOX

PB OR PB — PULL BOX

DISCONNECT SWITCH (NONFUSED)

DISCONNECT SWITCH COMBINATION MOTOR STARTER

DISCONNECT SWITCH ENCLOSED CIRCUIT BREAKER

3 — ELECTRIC MOTOR – HORSEPOWER AS INDICATED (3HP SHOWN)

CONDUIT RUN CONCEALED IN CEILING, WALLS, SLAB, UNDERGROUND, OR UNDER SLAB (WHEN CONDUIT IS LARGER THAN 1/3 OF SLAB THICKNESS OR CANNOT BE PLACED IN CENTER OF SLAB).

CONDUIT RUN EXPOSED

CONDUIT TURNING DOWN

CONDUIT TURNING UP

FLEXIBLE CONDUIT

CONDUIT CAPPED FOR FUTURE USE

CONDUIT SEALING FITTING

CONDUIT RUN OR ITEM DEMOLISHED

DATA/COMMUNICATION OUTLET

LIGHTING/AUXILIARY POWER PANEL–SURFACE MOUNTED

LIGHTING/AUXILIARY POWER PANEL–FLUSH MOUNTED

DISTRIBUTION POWER PANEL–SURFACE MOUNTED

ELECTRICAL DRAWING SYMBOLS

18 +44 — QUADPLEX RECEPTACLE "18" INDICATES CIRCUIT NUMBER, MOUNTING HEIGHT AS INDICATED (44" SHOWN)

7 +36 — SIMPLEX RECEPTACLE "7" INDICATES CIRCUIT NUMBER, MOUNTING HEIGHT AS INDICATED (36" SHOWN)

7 +36 — DUPLEX RECEPTACLE "7" INDICATES CIRCUIT NUMBER, MOUNTING HEIGHT AS INDICATED (36" SHOWN)

7 +36 GFI — GROUND FAULT INTERRUPTER RECEPTACLE "7" INDICATES CIRCUIT NUMBER, MOUNTING HEIGHT AS INDICATED (36" SHOWN)

7 +36 WP — WEATHER PROOF RECEPTACLE "7" INDICATES CIRCUIT NUMBER, MOUNTING HEIGHT AS INDICATED (36" SHOWN)

+44 2 — SPECIAL OUTLET AS NOTED

SINGLE POLE SWITCH

3 — 3–WAY SWITCH

4 — 4–WAY SWITCH

M — MOTOR RATED MANUAL CONTROLLER SWITCH

DATA/COMMUNICATION OUTLET

HE — HEATING ELEMENT

SELECTOR SWITCH

PUSH BUTTON

INDICATING LIGHT

TE — FIELD INSTRUMENT, TYPE INDICATED (TEMPERATURE SHOWN)

T — THERMOSTAT

FB — VISIBLE FLASHING ALARM BEACON

L — CEILING, POLE, OR PENDANT MOUNTED LIGHTING FIXTURE, TYPE AS INDICATED (TYPE "L" SHOWN)

B 10'–0" 6 — WALL OR BRACKET MOUNTED LIGHTING FIXTURE. "B" INDICATES TYPE, "6" INDICATES CIRCUIT NUMBER. MOUNTING HEIGHT AS INDICATED (10'–0" SHOWN)

A 2 — UNSWITCHED FLUORESCENT LIGHTING FIXTURE USED FOR EGRESS LIGHTING. "A" INDICATES TYPE, "2" INDICATES CIRCUIT NUMBER.

A (b) 2 — FLUORESCENT LIGHTING FIXTURE. "A" INDICATES TYPE, "b" INDICATES WHICH SWITCH CONTROLS, "2" INDICATES CIRCUIT NUMBER.

B 6 — EMERGENCY EXIT WALL OR BRACKET MOUNTED LIGHTING FIXTURE. "B" INDICATES TYPE, "6" INDICATES CIRCUIT NUMBER.

ELECTRICAL DRAWING SYMBOLS

AHS–XBT–P — ELECTRICAL CONDUIT TAG. REFER TO CONDUIT SCHEMATICS AND CONDUIT/WIRE SCHEDULE (TAGGED "AHS–XBT–P")

TYPICAL DUCT BANK SECTIONAL VIEW. SOLID CIRCLE REPRESENTS AN OCCUPIED CONDUIT. HOLLOW CIRCLE REPRESENTS AN EMPTY CONDUIT. REFER TO APPROPRIATE CONDUIT/WIRE SCHEDULE.

ELECTRICAL ONE–LINE DRAWING SYMBOLS

TRANSFORMER "TA" — 30kVA, 3ø, Δ480V, Y208/120V — POWER TRANSFORMER (30KVA, 3ø, 480V CLOSED DELTA: 208/120V WYE GROUNDED TURN RATIO, TAGGED "TA" SHOWN)

SHEILDED ULTRA–ISOLATION TRANSFORMER "OP–XFMR–CPP1" — 30kVA, 3ø, Δ480V, Y208/120V — SHIELDED ULTRA–ISOLATION TRANSFORMER. (30KVA, 3ø, 480V DELTA:120/208V WYE TURN RATIO, TAGGED "OP–XFMR–CPP1" SHOWN)

"CT–MCC1A" 1000/5 3 — WINDOW TYPE SINGLE–RATIO PHASE CURRENT TRANSFORMER (CT), RATIO AS INDICATED. NUMBER AT LOWER RIGHT INDICATES QUANTITY REQUIRED (1000:5 TURN RATIO, QUANTITY 3, TAGGED "CT–MCC1A" SHOWN)

"CT–B1–G" 50/5 1 — WINDOW TYPE GROUND CURRENT TRANSFORMER, RATIO AS INDICATED. NUMBER AT LOWER RIGHT INDICATES QUANTITY. (50:5 TURN RATIO, QUANTITY 1, TAGGED "CT–B1–G" SHOWN)

"PT–MCC1A–1" 120V 4160V 2 — POTENTIAL TRANSFORMER (PT) NUMBER INDICATES QUANTITY. (4160V:120V TURN RATIO, QUANTITY 2, TAGGED "PT–MCC1A–1" SHOWN)

3 — FUSE, NUMBER AT LOWER RIGHT INDICATES QUANTITY REQUIRED (3 SHOWN)

DRAW OUT DISCONNECTS

FUSE (DRAWOUT)

MICROPROCESSOR BASED PROTECTIVE RELAY FUNCTION SEE PROTECTIVE RELAY ABBREVIATIONS

MCP 3P–15A "MCP–GP6" — MAGNETIC CIRCUIT PROTECTOR, (3 POLE, 15A MOTOR CIRCUIT PROTECTOR, TAGGED "MCP–GP6" SHOWN)

CB 3P–100A "BKR–GP6" — THERMAL/MAGNETIC MOLDED CASE CIRCUIT BREAKER (3 POLE, 100A, TAGGED "BKR–GP6" SHOWN)

"STB–MCC1A" STB — TAP CHANGING/SHORTING TERMINAL BLOCK (TAGGED "STB–MCC1A")

SPD "SPD–MT1" — SURGE PROTECTIVE DEVICE (SPD) (TAGGED "SPD–MT1" SHOWN)

S.C. — SURGE CAPACITOR

L.A. — LIGHTNING ARRESTOR

ELECTRICAL ONE–LINE DRAWING SYMBOLS

LUGS — INCOMING POWER CONNECTION TO MOTOR CONTROL CENTER MAIN BUS.

CL MOTR106 — MULTI–FUNCTION CONTROL SYSTEM INTERLOCK FOR EQUIPMENT (TAGGED "MOTR106").

CONNECTION TO EQUIPMENT GROUND BUS (EARTH GROUND)

1A — TYPICAL CONNECTION TO MOTOR CONTROL CENTER BUS "1A" DENOTES MOTOR CONTROL CENTER SECTION NUMBER. REFER TO APPLICABLE MOTOR CONTROL CENTER ELEVATION DRAWING.

3 — MOTOR HORSEPOWER AS INDICATED (3HP SHOWN)

AHU–1 83.28A — ELECTRICAL LOAD (AIR HANDLING UNIT "AHU–1" SHOWN)

LV — MOTOR LOW VOLTAGE TERMINATION BOX

HV — MOTOR HIGH VOLTAGE TERMINATION BOX

V.O. — VALVE OPERATOR TERMINATION BOX

TITC — TEMPERATURE INDICATING TRANSMITTER/CONTROLLER

DEL–PDP02A–F1 — ELECTRICAL CONDUIT TAG. REFER TO CONDUIT SCHEMATICS AND CONDUIT/WIRE SCHEDULE (TAGGED "DEL–PDP02A–F1")

"P1" 208/120V 3ø, 4W 225A BUS 225 MCB 42 POLE 10,000 A.I.C. — LIGHTING PANEL. (TAGGED "P1", RATED 208/120 VOLT, 3 PHASE, 4 WIRE, 225 AMPERE, 10,000 A.I.C. INTERRUPT RATING, WITH 42 POLES AND 225 AMPERE MAIN CIRCUIT PROTECTOR)

kWH — WATT–HOUR METER

ETM — ELAPSED TIME METER

R — PILOT LIGHT R=RED, G=GREEN, W=WHITE, A=AMBER, Y=YELLOW, O=ORANGE (RED SHOWN)

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F–2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN — FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

ELECTRICAL SYMBOLS LEGEND
(SHEET 1 OF 3)

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
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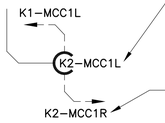
TBPE REG. NO. F–3580

STATE OF TEXAS — K. A. HARUTUNIAN — 59181 — REGISTERED PROFESSIONAL ENGINEER — 2/16/2021

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-01
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 19 OF 43
DATE: JUNE 2021	

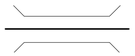
ELECTRICAL ONE-LINE DRAWING SYMBOLS



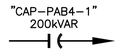
~~KEY INTERLOCK~~ TAG. TAG IS UNIQUE PER KEY INTERLOCK.

KEY INTERLOCK. KEY REQUIRED TO UNLOCK INTERLOCK. KEY CAN BE REMOVED FROM INTERLOCK ONLY AFTER INTERLOCK IS LOCKED.

~~DENOTES OTHER~~ KEY INTERLOCKS WHICH ARE INTERLOCKED WITH THIS KEY INTERLOCK. (KEY INTERLOCK TAGGED K2-MCC1L IS INTERLOCKED WITH KEY INTERLOCKS TAGGED K1-MCC1L AND K2-MCC1R)

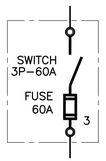


METAL ENCLOSED OVERHEAD BUS

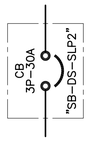


4160 VOLT THREE PHASE CAPACITOR BANK WITH RATING AS INDICATED (200 kVAR, TAGGED "CAP-PAB4-1" SHOWN)

NON-FUSED TYPE DISCONNECT SWITCH. (TAGGED "CH-DS-AHU1" SHOWN)



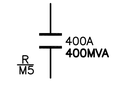
FUSIBLE SWITCH (3P-60A SHOWN)



ENCLOSED CIRCUIT BREAKER TYPE DISCONNECT SWITCH. (RATED 3P-30A, TAGGED "SB-DS-SLP2" SHOWN)

VARIABLE FREQUENCY DRIVE RATED 42A

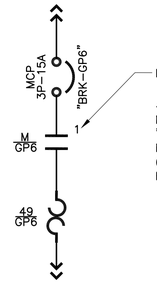
VARIABLE FREQUENCY DRIVE LINE REACTOR RATED AT 5% IMPEDANCE



NON-REVERSING, 400 AMPERE, 400MVA INTERRUPT RATING FULL VOLTAGE STARTER (TAGGED R/M5)

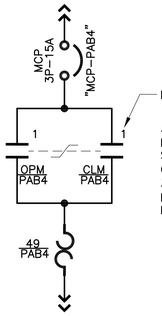
OVERLOAD RELAY (TAGGED 49/GP6)

ELECTRICAL ONE-LINE DRAWING SYMBOLS



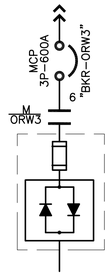
INDICATES NEMA SIZE (SIZE 1 SHOWN)

480V 3-POLE COMBINATION STARTER WITH MAGNETIC CIRCUIT PROTECTOR (TAGGED "BRK-GP6", RATED 3P-15A), FULL VOLTAGE NON-REVERSING (FVNR), NEMA SIZE 1 STARTER (TAGGED M/GP6) AND THERMAL OVERLOAD RELAY (TAGGED 49/GP6).



INDICATES NEMA SIZE (SIZE 1 SHOWN)

480 VOLT COMBINATION TYPE, FULL VOLTAGE, REVERSING, NEMA SIZE 1 MAGNETIC MOTOR STARTER WITH MAGNETIC ONLY, MOLDED CASE CIRCUIT BREAKER (TAGGED "MCP-PAB4", RATED 3P-15A) DISCONNECT AND THERMAL OVERLOAD RELAY (TAGGED 49/PAB4). OPM IS FORWARD, CLM IS REVERSE.



480 VOLT REDUCED VOLTAGE SOLID STATE NEMA SIZE 6 MOTOR STARTER WITH MAGNETIC ONLY, MOLDED CASE CIRCUIT BREAKER (TAGGED "MCP-ORW3", RATED 3P-600A) WITH CONTACTOR (TAGGED "M/ORW3")

PROTECTIVE RELAY ABBREVIATIONS

ΔV	VOLTAGE DIFFERENCE DISPLAY
A	CURRENT DISPLAY
Δθ	PHASE ANGLE DIFFERENCE DISPLAY
ΔF	FREQUENCY DIFFERENCE DISPLAY
PF	POWER FACTOR DISPLAY
RS	PROTECTIVE RELAY STATUS DISPLAY
SR	STALLED ROTOR DETECTION UNIT
VAR	REACTIVE POWER DISPLAY
V	VOLTAGE DISPLAY
W	REAL POWER DISPLAY
WH	WATT-HOUR DISPLAY
25	SYNC CHECK UNIT
26	TEMPERATURE (BEARING OR MOTOR WINDING) SENSING ELEMENT
27	UNDER VOLTAGE UNIT
37	UNDERCURRENT UNIT
38	BEARING PROTECTIVE DEVICE (TEMPERATURE)
39	VIBRATION CONTROL/ SENSING DEVICE
46	NEGATIVE SEQUENCE OVER CURRENT UNIT
47	NEGATIVE SEQUENCE OVERVOLTAGE UNIT
48	INCOMPLETE SEQUENCE UNIT

PROTECTIVE RELAY ABBREVIATIONS

50/46	INSTANTANEOUS NEGATIVE SEQUENCE OVERCURRENT
50/51	INSTANTANEOUS PHASED OVERCURRENT UNIT
50N/51N	INSTANTANEOUS NEUTRAL OVERCURRENT UNIT
51/46	TIMED NEGATIVE SEQUENCE OVERCURRENT UNIT
50G	INSTANTANEOUS GROUND OVERCURRENT UNIT
51G	TIMED GROUND OVERCURRENT UNIT
55	POWER FACTOR UNIT
59	OVERVOLTAGE UNIT
67	DIRECTIONAL OVERCURRENT UNIT
74	ALARM RELAY OUTPUT
77	TELEMETERING UNIT
81O/81U	OVER/UNDER FREQUENCY UNIT
83	TRANSFER RELAY OUTPUT
86	LOCKOUT UNIT
87	DIFFERENTIAL OVERCURRENT UNIT
94	TRIP RELAY OUTPUT

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REV	DATE	DESCRIPTION	APPROVED

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ELECTRICAL SYMBOLS LEGEND
(SHEET 2 OF 3)

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TBPE REG. NO. F-3580

K. A. HARUTUNIAN 59181 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS
12/16/2021

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-02
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 20 OF 43
DATE: JUNE 2021	

WIRING SCHEMATIC SYMBOLS

ZS BFV1 (X) — POSITION SWITCH (N.O.) (TAGGED "ZS/BFV1") NUMBER IN PARENTHESIS INDICATES DEVICE CONTACT NUMBER IN ORDER OF APPEARANCE.

ZS BFV1 — POSITION SWITCH (N.C.) (TAGGED "ZS/BFV1")

NSH PAB1 — TORQUE SWITCH (N.O.) (TAGGED "NSH/PAB1")

NSH PAB1 — TORQUE SWITCH (N.C.) (TAGGED "NSH/PAB1")

TSH PAB1 — TEMPERATURE SWITCH (NORMALLY OPEN; CLOSES ON RISING TEMPERATURE; OPENS ON FALLING TEMPERATURE) (TAGGED "TSH/PAB1")

TSH PAB1 — TEMPERATURE SWITCH (NORMALLY CLOSED; OPENS ON RISING TEMPERATURE; CLOSES ON FALLING TEMPERATURE) (TAGGED "TSH/PAB1")

MOTOR SPACE HEATER — MOTOR SPACE HEATER

SX PAB1 — CONTROL RELAY NORMALLY OPEN CONTACTS (TAGGED "SX/PAB1")

SX PAB1 — CONTROL RELAY NORMALLY CLOSED CONTACTS (TAGGED "SX/PAB1")

MECHANICALLY INTERLOCKED RELAY CONTACTS

SX PAB1 — CONTROL RELAY COIL (TAGGED "SX/PAB1")

T.O.E. PFT MCC1A — TIMING DELAY RELAY, TIMES OUT AFTER ENERGIZATION (TAGGED "PFT/MCC1A")

T.O.D. PFT MCC1A — TIMING DELAY RELAY, TIMES OUT AFTER DE-ENERGIZATION (TAGGED "PFT/MCC1A")

PFT MCC1A — TIMING DELAY RELAY CONTACTS (N.O., T.O.E.) (TAGGED "PFT/MCC1A")

PFT MCC1A — TIMING DELAY RELAY CONTACT (N.C., T.O.E.) (TAGGED "PFT/MCC1A")

PFT MCC1A — TIMING DELAY RELAY CONTACT (N.O., T.O.D.) (TAGGED "PFT/MCC1A")

PFT MCC1A — TIMING DELAY RELAY CONTACT (N.C., T.O.D.) (TAGGED "PFT/MCC1A")

WIRING SCHEMATIC SYMBOLS

MOMENTARY PUSH-BUTTON NORMALLY OPEN CONTACTS

MOMENTARY PUSH-BUTTON NORMALLY CLOSED CONTACTS

MUSHROOM HEAD PUSH TO OPEN, PULL TO CLOSE MAINTAINED ACTION PUSH-BUTTON

LSL PAB1 — LEVEL SWITCH (N.O.) CLOSES ON ABNORMAL LEVEL (TAGGED "LSL/PAB1")

LSL PAB1 — LEVEL SWITCH (N.C.) OPENS ON ABNORMAL LEVEL (TAGGED "LSL/PAB1")

PSL PAB1 — PRESSURE SWITCH (N.O.) CLOSES ON ABNORMAL PRESSURE (TAGGED"PSL/PAB1")

PSL PAB1 — PRESSURE SWITCH (N.C.) CLOSES ON ABNORMAL PRESSURE (TAGGED"PSL/PAB1")

FSL PAB1 — FLOW SWITCH (N.O.) CLOSES ON FLOW (TAGGED "FSL/PAB1")

M SHPAB1 — ELECTRIC MOTOR (TAGGED "M/SHPAB1")

CB — THERMAL/MAGNETIC CIRCUIT BREAKER

MCP — MAGNETIC CIRCUIT PROTECTOR (MOTOR CIRCUIT PROTECTOR)

49 BFV1 — OVERLOAD RELAY (TAGGED "49/BFV1")

MCP "BKR-BFV1" — 3-POLE CIRCUIT BREAKER OR MOTOR CIRCUIT PROTECTOR AS APPLICABLE (TAGGED "BKR-BFV1")

"LBS-BV1" — 3-POLE DISCONNECT SWITCH (TAGGED "LBS-BFV1")

49 BFV1 — OVERLOAD RELAY CONTACTS (TAGGED "49/BFV1")

MOTOR STARTER CONTACTS

WIRING SCHEMATIC SYMBOLS

MAN / AUTO — 2 POSITION MAINTAINED ACTION SELECTOR SWITCH "MAN", "AUTO"

GEAR LIMIT SWITCH (N.O.)

GEAR LIMIT SWITCH (N.C.)

CONNECTION TO EQUIPMENT GROUND BUS (EARTH GROUND)

IG — CONNECTION TO ISOLATION GROUND BUS

CONNECTION TO EQUIPMENT CHASSIS (CHASSIS GROUND)

R — PILOT LIGHT (RED SHOWN) R=RED, G=GREEN, W=WHITE, A=AMBER, Y=YELLOW, O=ORANGE

ETM — ELAPSED TIME METER

AUDIBLE ALARM HORN

OR / PC — PHOTOCELL

POWER FACTOR CORRECTION CAPACITOR ("TAGGED PFCC-PAB1")

POWER FACTOR CORRECTION CAPACITOR "PFCC-PAB1"

POTENTIAL TRANSFORMER (PT)

"CT-PAB1-G" — GROUND CURRENT TRANSFORMER (CT) (TAGGED "CT-PAB1-G")

"CT-PAB1-1-A" — PHASE CURRENT TRANSFORMER (CT) (TAGGED "CT-PAB1-1-A")

480V / 120V — CONTROL POWER TRANSFORMER (CPT)

WIRING SCHEMATIC SYMBOLS

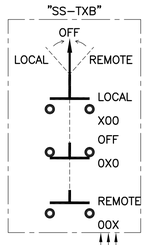
MOTOR — ELECTRIC MOTOR

CLOSED — PLC DISCRETE (RELAY CONTACT) OUTPUT (NORMALLY CLOSED)

OPEN — PLC DISCRETE (RELAY CONTACT) OUTPUT (NORMALLY OPEN)

5 — PLC DISCRETE INPUT (POINT "5" SHOWN)

"SS-TXB"



THREE POSITION, MAINTAINED ACTION, "LOCAL-OFF-REMOTE" SELECTOR SWITCH WITH MULTIPLE CONTACTS (THREE SHOWN) MECHANICALLY LINKED TO A SINGLE OPERATOR MECHANISM. A CONTACT DEVELOPMENT LEGEND FOR EACH CONTACT IS SHOWN IMMEDIATELY ADJACENT TO THE CONTACT. EACH CHARACTER IN THE CONTACT DEVELOPMENT LEGEND REPRESENTS THE STATUS OF ITS ASSOCIATED CONTACT FOR THE CORRESPONDING POSITION OF THE SELECTOR SWITCH. IN THE EXAMPLE SHOWN, THE LEFTMOST CHARACTER IN THE CONTACT DEVELOPMENT CORRESPONDS TO THE "LOCAL" POSITION, THE CENTER CHARACTER CORRESPONDS TO THE "OFF" POSITION, AND THE RIGHTMOST CHARACTER CORRESPONDS TO THE "REMOTE" POSITION. AN "X" INDICATES THAT THE CONTACT IS CLOSED AND A "0" INDICATES THAT THE CONTACT IS OPEN WHEN THE SELECTOR SWITCH IS IN THE CORRESPONDING POSITION. (TAGGED "SS-TXB")

INDICATES CONTACT IS CLOSED WHEN SELECTOR SWITCH IS IN THE "REMOTE" POSITION

INDICATES CONTACT IS OPEN WHEN SELECTOR SWITCH IS IN THE "OFF" POSITION

INDICATES CONTACT IS OPEN WHEN SELECTOR SWITCH IS IN THE "LOCAL" POSITION

TYPICAL CONTROL LOGIC WIRE JUMPER USED FOR JUMPERS LOCATED ENTIRELY INSIDE OF THE MOTOR CONTROL CENTER. USE ONLY IN THE MOTOR CONTROL CENTER WHERE SPECIFICALLY SHOWN ON THE CONTROL SCHEMATIC CONTRACT DRAWINGS. ALL OTHER WIRING SHALL BE TERMINATED TO TERMINAL BLOCKS. ALSO REFER TO THE CONTRACT DRAWINGS/SPECIFICATIONS FOR ADDITIONAL INFORMATION. THIS SYMBOL ONLY APPEARS ON A PORTION OF THE CONTROL SCHEMATIC CONTRACT DRAWINGS, AND ON NO OTHER CONTRACT DRAWING.

INDICATES WIRE JUMPER

TYPICAL BLADE TERMINAL BLOCK JUMPER CONFIGURATION FOR A TERMINAL ON A TERMINAL STRIP. THIS CONFIGURATION APPLIES FOR ALL TERMINAL SYMBOLS.

SYMBOL VARIES WITH TERMINAL BLOCK LOCATION

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REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN — FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

ELECTRICAL SYMBOLS LEGEND
(SHEET 3 OF 3)

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TBPE REG. NO. F-3580

STATE OF TEXAS — K. A. HARUTUNIAN 59181 — REGISTERED PROFESSIONAL ENGINEER — 7/8/2021

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-03
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 21 OF 43
DATE: JUNE 2021	

GENERAL NOTES:

1. EQUIPMENT/CONDUIT TAGS/NAMES HAVE BEEN ARBITRARILY ASSIGNED TO AID IN THE DRAWINGS. SOME EXISTING TAGS/NAMES HAVE BEEN USED WHERE POSSIBLE. CONTRACTOR SHALL MAKE EXTENSIVE VERIFICATION OF EXISTING EQUIPMENT PRIOR TO COMMENCING FULL SCALE DEMOLITION/RENOVATION ACTIVITIES.

2. VERIFY LOCATION OF EXISTING FACILITIES PRIOR TO CONSTRUCTION OF FACILITIES PROPOSED IN THIS CONTRACT. TAKE CARE TO AVOID DAMAGE TO EXISTING FACILITIES. REPAIR ANY FACILITY DAMAGED IN THE COURSE OF CONSTRUCTION OF ANY PART OF THIS CONTRACT TO ITS ORIGINAL OPERATING CONDITION IMMEDIATELY, WITH REPAIR CREWS WORKING 24 HOURS PER DAY UNTIL THE DAMAGE IS REPAIRED.

3. THE CONTRACTOR SHALL BE AWARE THAT WHEN ANY EXISTING EQUIPMENT IS DISCONNECTED, REMOVED, RELOCATED OR OTHERWISE MODIFIED, THE POSSIBILITY MAY EXIST FOR SUCH ACTION TO LEAD TO INTERRUPTION OF OPERATION OF THE TREATMENT PLANT IF EXTREME CARE, VERIFICATION, AND VALIDATION IS NOT CAREFULLY EXERCISED PRIOR TO COMMENCEMENT OF SUCH ACTIVITY. THE CONTRACTOR SHALL KNOW THAT ANY INTERRUPTION TO THE CONTINUITY OF TREATMENT PLANT OPERATION AT ITS RATED CAPACITY IS UNACCEPTABLE DURING THE CONSTRUCTION COURSE OF THIS PROJECT. HOWEVER, SHOULD ANY INTERRUPTION TO THE TREATMENT PLANT OPERATION OCCUR FOR ANY UNFORESEEN REASON, WHETHER TOTALLY ACCIDENTAL OR DUE TO IMPROPER FIELD INVESTIGATION AND IMPROPER PLANNING PRIOR TO COMMENCEMENT OF THE ELECTRICAL/INSTRUMENTATION DEMOLITION EFFORT, THE RESPONSIBLE CONTRACTOR SHALL DETERMINE THE PROBLEM, CORRECT IT, AND START UP THE INTERRUPTED EQUIPMENT WITHIN A CERTAIN TIME PERIOD AS DETERMINED BY THE OWNER AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL PROVIDE CONTINUOUS, 24–HOUR, LABOR, EQUIPMENT, MATERIAL, AND ACCESSORIES UNTIL SUCH TIME THAT ANY EFFECTED EQUIPMENT OPERATES AS PREVIOUSLY OPERATED, AT NO ADDITIONAL COST TO THE OWNER AND TO THE OWNER'S SATISFACTION.

4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE APPLICABLE CONDUIT/WIRING TO EXISTING EQUIPMENT WHETHER SHOWN HERE OR NOT. THE CONTRACTOR SHALL EXERCISE EVERY PRECAUTION TO ELIMINATE HAZARDS IN DISCONNECTING ANY DEVICE FROM AN ELECTRICAL CIRCUIT. THE CONTRACTOR MUST TAKE GREAT CARE FOR THERE ARE NO AVAILABLE AS BUILT RECORDS ACCURATELY AND COMPLETELY IDENTIFYING THE EXISTING ROUTING OF ALL DUCTBANK/CONDUIT BETWEEN THE VARIOUS EXISTING EQUIPMENT AND THEIR COORDINATION WITH THE EXISTING ELECTRICAL SYSTEM. THEREFORE THE CONTRACTOR IS TO EXERCISE EXTREME CARE, VERIFY THE ROUTING OF EXISTING DUCTBANK/CONDUIT PRIOR TO FULL SCALE DEMOLITION OR RENOVATION ACTIVITIES. FOLLOWING THE DISCOVERY VERIFICATION OF THE EXISTING FIELD CONDITIONS, SHOULD ADJUSTMENTS BECOME A NECESSITY TO THE EXISTING OR PROPOSED SYSTEM (AS APPLICABLE), THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE OWNERS ATTENTION FOR EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS.

5. THE INTENT IS TO KEEP THE EXISTING FACILITIES OPERATIONAL AT ALL TIMES. COORDINATE WITH THE OWNER FOR SCHEDULING OF EQUIPMENT/POWER/INSTRUMENTATION AND CONTROL/PROCESS/ETC. OUTAGES REQUIRED PRIOR TO COMMENCING DEMOLITION/MODIFICATION ACTIVITIES.

6. SHOULD PROBLEMS OCCUR UPON THE ACTIVATION OF POWER, CORRECTION SHALL BE MADE PROMPTLY AT NO EXPENSE TO THE OWNER.

7. ALL ELECTRICAL SWITCHING, DE–ENERGIZATION OF LOADS, ENERGIZATION OF LOADS, ETC., SHALL BE PERFORMED IN THE PRESENCE OF, AND WITH THE CONSENT OF, THE OWNER.

8. THE OWNER'S EXISTING EQUIPMENT IS IN PERFECT WORKING CONDITION. SHOULD THE EXISTING EQUIPMENT, ITS ASSOCIATED INTERCONNECT CONDUIT/WIRE, ETC., AS APPLICABLE, BE DAMAGED OR BECOME OTHERWISE UNUSABLE DURING THE CONSTRUCTION COURSE OF THIS PROJECT, THE RESPONSIBLE CONTRACTOR SHALL DETERMINE THE PROBLEM, CORRECT IT, AND FURNISH AND INSTALL ALL NECESSARY WIRING/HARDWARE/ETC., TO MATCH EXISTING AND MAKE ALL FINAL CONNECTIONS SUCH THAT ALL AFFECTED EQUIPMENT OPERATES AS PREVIOUSLY OPERATED TO THE OWNERS SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.

9. EXISTING INFORMATION SHOWN ON THE DRAWINGS WAS PRIMARILY OBTAINED FROM RECORD DRAWINGS OF THE PROJECTS ENTITLED:

   A. "WALLER CREEK TUNNEL PROJECT: INLET FACILITY AT WATERLOO PARK"; C.O.A PROJECT NO. 6521.003; 2011.
   B. "WALLER CREEK INLET DAM BYPASS"; C.O.A PROJECT NO. 10878.002; 2019.

10. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING CONDUITS. CONDUIT WITH WIRING AND POSSIBLE PIPING MAY EXIST IN AREAS OF THE FLOOR TO BE CORE DRILLED. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL AVAILABLE DOCUMENTATION, RECORD DRAWINGS, ETC. FOR ADDITIONAL CONFIRMATION. ADDITIONALLY, THE CONTRACTOR, AT HIS/HER OWN EXPENSE, MAY UTILIZE ANY METHOD/MEANS NECESSARY FOR EXACT FIELD VERIFICATION TO IDENTIFY LOCATION AND FUNCTION OF ANY CONDUIT/WIRING THAT MAY POTENTIALLY BE EMBEDDED/BURIED IN THE CONCRETE WALLS/FLOORS OF THE AREA IN WHICH CORE DRILLING IS SCHEDULED TO TAKE PLACE. SUCH EFFORT IS STRICTLY THE CONTRACTOR'S PREROGATIVE AND WHEN EXECUTED SHALL NOT BE CONSIDERED AS ADDED SERVICES BY THE CONTRACTOR NOR SHALL THESE SERVICES BE COMPENSATED BY THE OWNER, E.G., SUCH SERVICES WILL BE PROVIDED BY THE CONTRACTOR AS DEEMED NECESSARY BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. FOLLOWING THE RESULTS OF THE ACTUAL FIELD VERIFICATION MEANS/METHODS UTILIZED BY THE CONTRACTOR, SHOULD ADJUSTMENT/MODIFICATION OF THE CORE DRILLING BECOME A NECESSITY, THEN THE EXISTING DISCOVERED FIELD CONDITIONS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION FOR THE EXECUTION OF THE NECESSARY ADJUSTMENTS/MODIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.

GENERAL NOTES (CONTINUED):

11. CONTINUOUS OPERATION OF OWNER'S FACILITIES IS OF CRITICAL IMPORTANCE. THE CONTRACTOR SHALL:

    A. SCHEDULE AND CONDUCT ACTIVITIES TO ENABLE EXISTING FACILITIES TO OPERATE CONTINUOUSLY, UNLESS OTHERWISE SPECIFIED.

    B. CONDUCT WORK OUTSIDE NORMAL WORKING HOURS AS MAY BE NECESSARY TO MEET PROJECT SCHEDULE AND AVOID UNDESIRABLE CONDITIONS.

    C. NOTHING IN THESE DOCUMENTS SHALL RESTRICT THE OWNER FROM PARTIAL UTILIZATION OF ANY COMPLETED PART OF THE WORK, NOR SHALL THE RIGHT OF THE OWNER TO OPERATE FACILITIES BE RESTRAINED IN ANY WAY, EXCEPT WHERE SHUTDOWN OF SPECIFIC FACILITIES FOR CONSTRUCTION HAS BEEN AGREED UPON BY THE OWNER.

    D. OWNER'S EQUIPMENT, INCLUDING GATES, VALVES, AND MOTORS SHALL NOT BE OPERATED WITHOUT THE APPROVAL OF THE OWNER. THE OWNER MAY ELECT TO HAVE AN AUTHORIZED OWNER'S REPRESENTATIVE OPERATE OWNER'S EQUIPMENT OR TO WITNESS OPERATION.

    E. SHOULD A POWER OUTAGE TO A FACILITY BE REQUIRED, THE CONTRACTOR SHALL REQUEST SUCH AN OUTAGE IN WRITING NO LESS THAN NINETY–SIX (96) HOURS IN ADVANCE. CONTRACTOR'S WRITTEN REQUEST SHALL IDENTIFY THE DESIRED DATE, TIME, DURATION, AND PURPOSE OF THE REQUESTED DAY UNLESS HE/SHE OBTAINS A WRITTEN APPROVAL FROM THE OWNER AUTHORIZING THE OUTAGE. THE OWNER RESERVES THE RIGHT TO MODIFY OR REJECT ANY REQUEST SUCH AN OUTAGE. MODIFICATION OR REJECTION OF THE CONTRACTORS REQUEST BE THE OWNER SHALL NOT BE CONSIDERED REASON FOR DELAYS IN THE CONSTRUCTION SCHEDULE. UNLESS OTHERWISE NOTED, THE DURATION OF THE OUTAGE SHALL BE LIMITED TO FOUR (4) HOURS OR LESS. THE OWNER RESERVES THE RIGHT TO LIMIT THE DURATION OF THE OUTAGE TO LESS THAN 4 HOURS. MODIFICATION OF THE OUTAGE DURATION BY THE OWNER SHALL NOT BE CONSIDERED REASON FOR DELAYS IN THE CONSTRUCTION SCHEDULE.

12. DURING DEMOLITION/RENOVATION ACTIVITIES, CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIATION OF ALL LEAD PAINT PRIOR TO REMOVAL OF LEAD PAINTED PIPING/EQUIPMENT. CONTRACTOR SHALL FOLLOW ALL OSHA REQUIREMENTS FOR REMEDIATION OF LEAD PAINT. SEE DIVISION 1 SPECIFICATIONS FOR REMEDIATION DETAILS. SEE SECTION 01010 AND RELATED ATTACHMENTS FOR AREAS CONTAINING LEAD PAINT.

13. CONTRACTOR SHALL FIELD VERIFY ALL INTERCONNECT WIRING CONNECTING TO THE EXISTING PROGRAMMABLE LOGIC CONTROLLER INPUT/OUTPUT MODULES LOCATED WITHIN EXISTING CONTROL PANEL ENCLOSURES PRIOR TO COMMENCING DEMOLITION OR RENOVATION ACTIVITIES.

14. THE CONTRACTOR IS REMINDED THAT ALTHOUGH THESE ATTACHMENTS ARE PRESENTED IN THE CONTRACT SPECIFICATIONS, THEY SHALL BE CONTINUALLY MAINTAINED, I.E. "BLUE–LINED" AS DESCRIBED IN SECTION 01300, BY THE CONTRACTOR ALONG WITH THE OTHER CONTRACT DOCUMENTS AS RECORD DRAWINGS THROUGHOUT THE ENTIRE PROJECT DURATION AND SUBMITTED AS PART OF THE "AS–BUILT" DRAWINGS. ALSO REFER TO THE SPECIFICATIONS.

GENERAL NOTES (CONTINUED):

15. PROPOSED ITEMS ARE SHOWN IN DARK LINEWORK. EXISTING AND FUTURE ITEMS ARE SHOWN IN LIGHT LINEWORK, UNLESS NOTED OTHERWISE.

16. LOCATIONS AND SIZES OF ELECTRICAL EQUIPMENT ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS AND ALL POINTS OF CONNECTION PRIOR TO INSTALLATION OF PROPOSED COMPONENTS.

17. NOT ALL CIVIL/MECHANICAL/STRUCTURAL/ELECTRICAL/ETC. COMPONENTS ARE SHOWN ON EACH DRAWING. REFER TO THE CIVIL/MECHANICAL/STRUCTURAL DRAWINGS FOR MANY OF THE GENERAL LOCATIONS, QUANTITY, AND TYPES OF PROPOSED EQUIPMENT, INSTRUMENTS, ETC., TO BE INSTALLED. IN ADDITION, REFER TO THE APPLICABLE ELECTRICAL DRAWINGS AND MAKE ALL FINAL CONNECTIONS.

18. EXACT LOCATIONS OF MECHANICAL/STRUCTURAL/CIVIL COMPONENTS ARE NOT SHOWN ON THE ELECTRICAL, INSTRUMENTATION, OR CONTROL SYSTEM DRAWINGS. REFER TO CIVIL/MECHANICAL/STRUCTURAL DRAWINGS FOR EXACT LOCATIONS OF CIVIL/MECHANICAL/STRUCTURAL ITEMS.

19. CONTRACTOR SHALL SIZE ALL PULL/JUNCTION BOXES PER, AND IN ACCORDANCE WITH, THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.).

20. UPON COMPLETION OF RENOVATION ACTIVITIES, COVER AND SEAL ALL UNUSED CONDUIT/WIRE PENETRATIONS ON EXISTING REMAINING PULLBOXES. IF EXISTING PULLBOX IS UNTAGGED, CONTRACTOR SHALL TAG EXISTING PULLBOX PER SPECIFICATIONS.

21. SEAL ALL DEMOLISHED CONDUIT/WIRE PENETRATIONS THROUGH STRUCTURE, THAT ARE NOT REUSED DURING RENOVATION ACTIVITIES, WITH 50 YEAR NON–SHRINK WATER TIGHT GROUT (GROUT FLUSH WITH STRUCTURAL FLOOR/WALL SLAB). ALSO REFER TO THE ELECTRICAL DETAILS FOR ADDITIONAL INFORMATION AND MAKE ALL FINAL CONNECTIONS.

22. ANY MODIFICATION TO THE ROADWAY/CURBING/SIDEWALK/FENCE/ LANDSCAPING/ GRASSES/ ETC., WHETHER SHOWN ON THE DRAWINGS OR NOT, SHALL BE REPAIRED TO MATCH EXISTING TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.

23. THE ACTUAL REQUIRED SIZE OF CONDUIT ENTRANCE AREAS TO BE DETERMINED BY THE MANUFACTURER. THE LOCATION AND SIZE OF THE CONDUIT ENTRANCE AREAS FOR THE ELECTRICAL DISTRIBUTION EQUIPMENT, CONTROL EQUIPMENT, EQUIPMENT MANUFACTURER PACKAGED POWER/CONTROL PANELS, PROCESS/BUILDING MECHANICAL EQUIPMENT, ETC., AS APPLICABLE, SHALL BE COORDINATED WITH THE APPLICABLE EQUIPMENT MANUFACTURER. PRIOR TO FINAL CONDUIT/WIRE INSTALLATION.

24. CONTRACTOR SHALL COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE WITH PROPOSED CIVIL/MECHANICAL/STRUCTURAL/ELECTRICAL SYSTEMS/COMPONENTS/EQUIPMENT/UTILITIES, ETC.

25. THE MAIN CONTROL PANEL/FIELD CONTROLS STATION SIZES SHOWN REPRESENT THE MINIMUM REQUIRED SIZES AND ARE APPROXIMATE. CONTRACTOR TO DETERMINE EXACT AS–BUILT SIZE REQUIRED FOR THE MAIN CONTROL PANEL/FIELD CONTROLS STATION TO MEET THE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS) WITHOUT ANY ADDITIONAL COST TO THE OWNER (SHOULD THE FINAL SIZE BE LARGER THAN THE MINIMUM SIZE REQUIRED BY THIS DRAWING). ADDITIONALLY, THE CONTRACTOR IS TO CAREFULLY REVIEW THE ELECTRICAL/CONTROL FLOOR PLAN DRAWING AND MAKE ANY ADJUSTMENTS/EQUIPMENT REARRANGEMENTS NECESSARY TO MEET NATIONAL ELECTRICAL CODE REQUIREMENTS AND ANY OTHER SAFETY CODES ADOPTED BY THE OWNER SHOULD THE MAIN CONTROL PANEL/FIELD CONTROLS STATION SIZE BE ANY GREATER/LARGER THAN THE MINIMUM SIZE REQUIRED BY THE PLANS. CONDUIT/WIRING, ETC. ADJUSTMENT CAUSED BY ANY EQUIPMENT REARRANGEMENT, ETC. SHALL ALSO BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

26. THE MAIN CONTROL PANEL/FIELD CONTROL STATION FRONT ELEVATION DRAWINGS ARE INTENDED, IN PART, AS AN OVERALL CONCEPTUAL LAYOUT OF THE INTERIOR/EXTERIOR (AS APPLICABLE) OF THE MAIN CONTROL PANEL/FIELD CONTROLS STATION AND REPRESENTS THE OVERALL LAYOUT PATTERN OF MAJOR DEVICES AND TERMINATION OF DEVICES IN RELATION TO THE PROPOSED PROCESS/MECHANICAL SYSTEM. DO NOT INFER EXACT COMPONENT QUANTITIES AND LOCATIONS FROM THESE FRONT ELEVATION DRAWINGS. THE FRONT ELEVATION DRAWINGS ARE NOT INCLUSIVE OF ALL REQUIREMENTS AND DOES NOT DEPICT ALL COMPONENTS OR REQUIREMENTS OF THE MAIN CONTROL PANEL/FIELD CONTROLS STATION. COORDINATE ALL CONTROL DEVICES, CONTROL RELAYS, ETC., REQUIREMENTS WITH THE APPLICABLE EQUIPMENT WIRING SCHEMATICS. ALSO REFER TO THE WIRING SCHEMATICS DRAWINGS AND TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. PLEASE NOTE THAT THE EQUIPMENT AS IDENTIFIED ON EACH MAIN CONTROL PANEL/FIELD CONTROLS STATION FRONT ELEVATION DRAWING ARE TYPICAL FOR THE ENTIRE DRAWING UNLESS NOTED OTHERWISE. NUMBER IN CIRCLE CORRESPONDS TO IDENTIFICATION MARK IN THE APPLICABLE EQUIPMENT SCHEDULE.

GENERAL NOTES (CONTINUED):

27. THE MAJORITY OF THE CONDUIT/WIRE ROUTES SHOWN ON THE DRAWINGS ARE SHOWN PARTIALLY (WITH "HOMERUNS"). ADDITIONALLY, CERTAIN SPECIFIC CONDUIT/WIRE/PULLBOX/ETC., LOCATION/ROUTING REQUIREMENTS ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION/ROUTING FOR, FURNISH, AND INSTALL THE ENTIRE LENGTH OF THE PROPOSED CONDUIT/WIRE, REQUIRED INTERMEDIATE PULLBOXES, RELATED FITTINGS, AND ALL REQUIRED MOUNTING HARDWARE AND MAKE ALL FINAL CONNECTIONS. THE CONTRACTOR SHALL SIZE ALL NECESSARY REQUIRED PULLBOXES TO FACILITATE THE PROPOSED CONDUIT/WIRE INSTALLATION. ALSO REFER TO THE APPLICABLE CONDUIT/WIRE SCHEDULE, ONE–LINE DIAGRAMS, FLOOR PLAN DRAWINGS, ETC., TO AIDE IN THE LOCATION/ROUTING OF THE PROPOSED CONDUIT/WIRE/PULLBOXES/MOUTING HARDWARE/ETC. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE PROPOSED ELECTRICAL EQUIPMENT WITH THE INSTALLATION OF THE PROPOSED CIVIL/MECHANICAL/STRUCTURAL/ETC. UTILITIES, AND THE EXISTING CIVIL/MECHANICAL/STRUCTURAL/ETC. UTILITIES.

28. REFER TO PLC I/O WIRING SCHEMATIC FOR INTERFACE POINTS TO THE DISTRIBUTED CONTROL SYSTEM THAT ARE SHOWN ON THE CONTROL WIRING SCHEDULE BUT NOT IDENTIFIED ON TAG REPLACEMENT SCHEDULE.

29. CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE, PULLBOXES, AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL PROPOSED VENDOR EQUIPMENT PACKAGED SYSTEM SUB–COMPONENTS WITH THEIR RESPECTIVE PROPOSED CONTROL PANEL/MOTOR CONTROL CENTER/ETC., AS APPLICABLE. FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL/MOTOR CONTROL CENTER/ETC., AS APPLICABLE, INSTALL THE CONTROL PANEL/MOTOR CONTROL CENTER/ ETC., AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.

ALL GENERAL NOTES LISTED ON THIS SHEET ARE APPLICABLE TO ALL ELECTRICAL, INSTRUMENTATION AND CONTROLS SHEETS IN ADDITION TO ANY GENERAL NOTES SHOWN ON EACH INDIVIDUAL SHEET.

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F–2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

ELECTRICAL
GENERAL NOTES

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

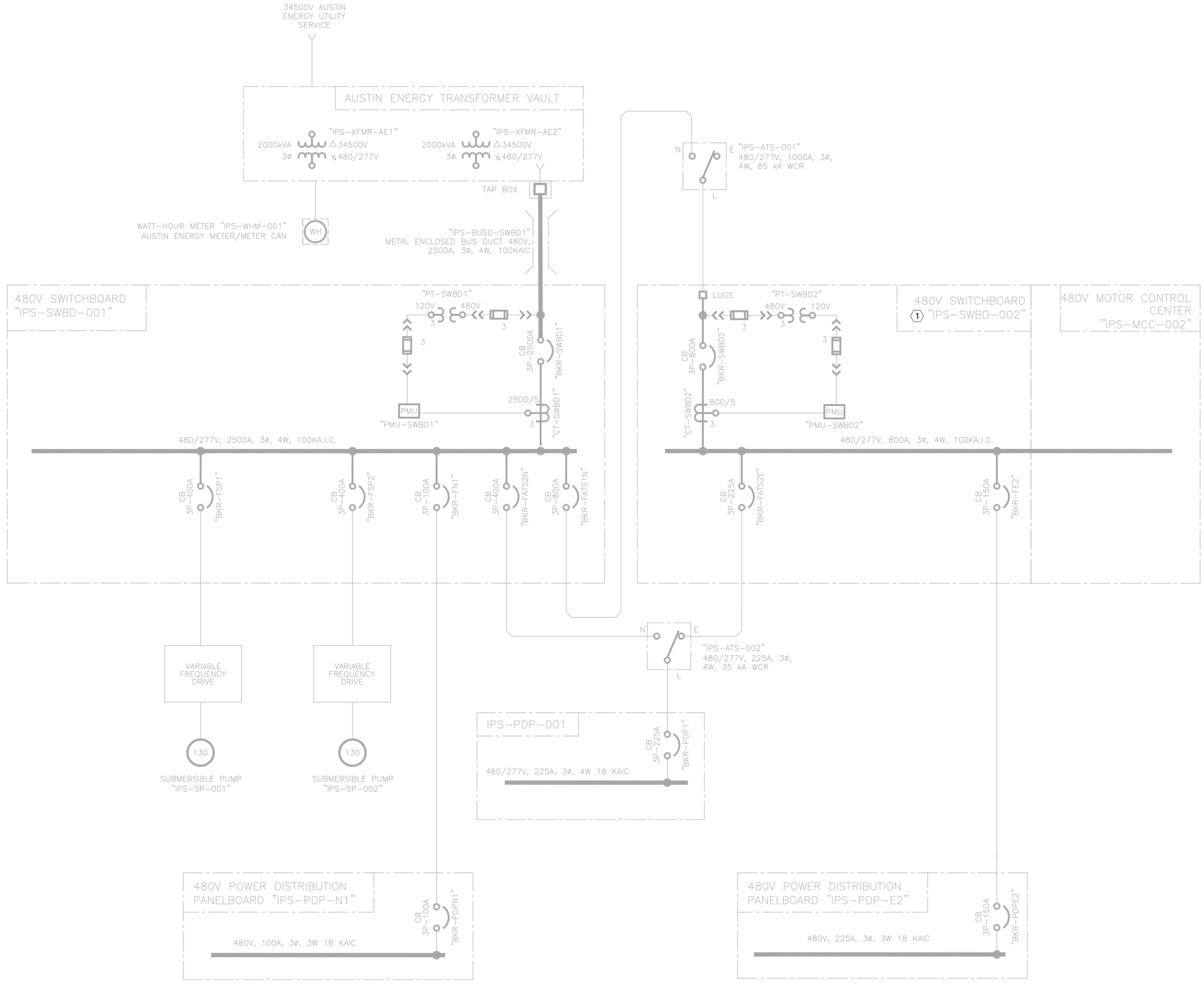
STATE OF TEXAS
K. A. HARUTUNIAN
59181
REGISTERED
PROFESSIONAL ENGINEER
12/16/2021

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-04
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 22 OF 43
DATE: JUNE 2021	

KEY NOTES:

1. EXISTING 480V SWITCHBOARD MANUFACTURED BY "SQUARE D", MODEL "QED SWITCHBOARD", FACTORY ORDER NUMBER "30374408-003", AND PURCHASE NUMBER "S100377153". INSTALLED CIRCA 2014



HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

OVERALL ONE-LINE DIAGRAM
RENOVATION

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
REGISTERED
PROFESSIONAL ENGINEER
2/16/2021

VERIFY SCALES
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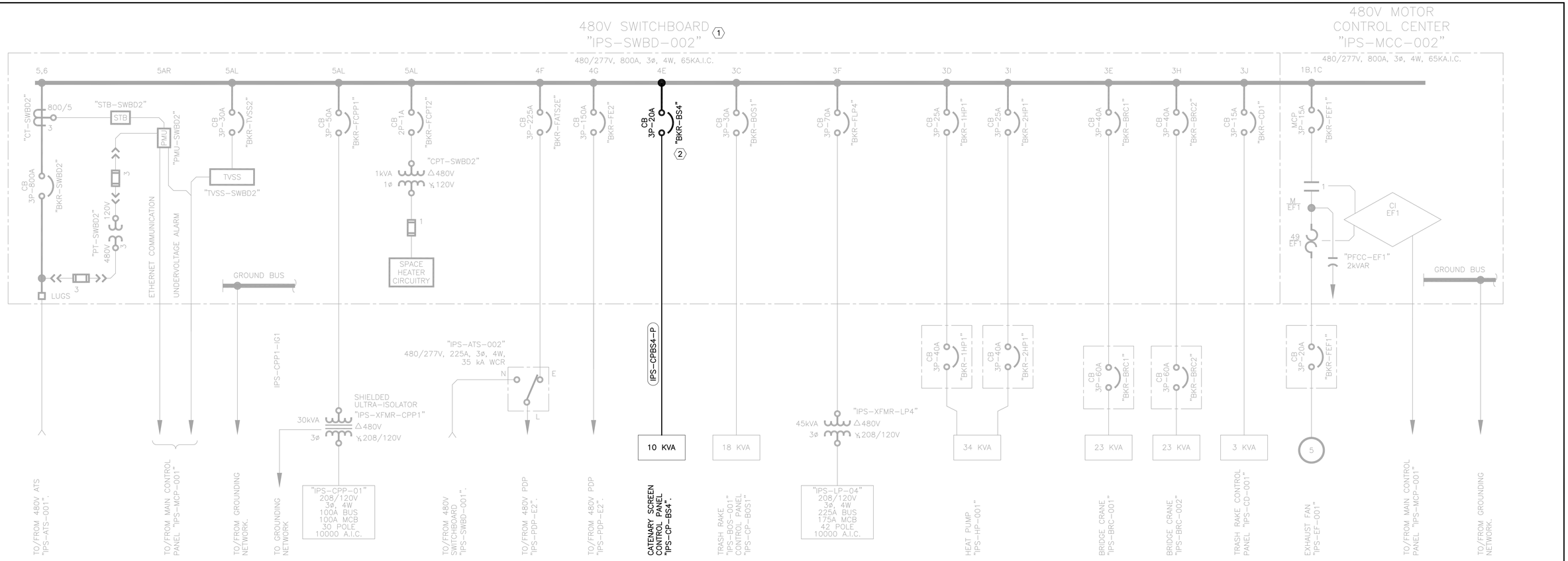
DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-05
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 23 OF 43
DATE: JUNE 2021	



KEY NOTES:

(1) EXISTING 480V SWITCHBOARD MANUFACTURED BY "SQUARE D", MODEL "QED SWITCHBOARD", FACTORY ORDER NUMBER "30374408-003", AND PURCHASE NUMBER "S100377153". INSTALLED CIRCA 2014.

(2) FURNISH AND INSTALL CIRCUIT BREAKER AND MAKE ALL FINAL TERMINATIONS. COORDINATE WITH SWITCHBOARD MANUFACTURER.

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

DETAILED ONE-LINE DIAGRAM
RENOVATION

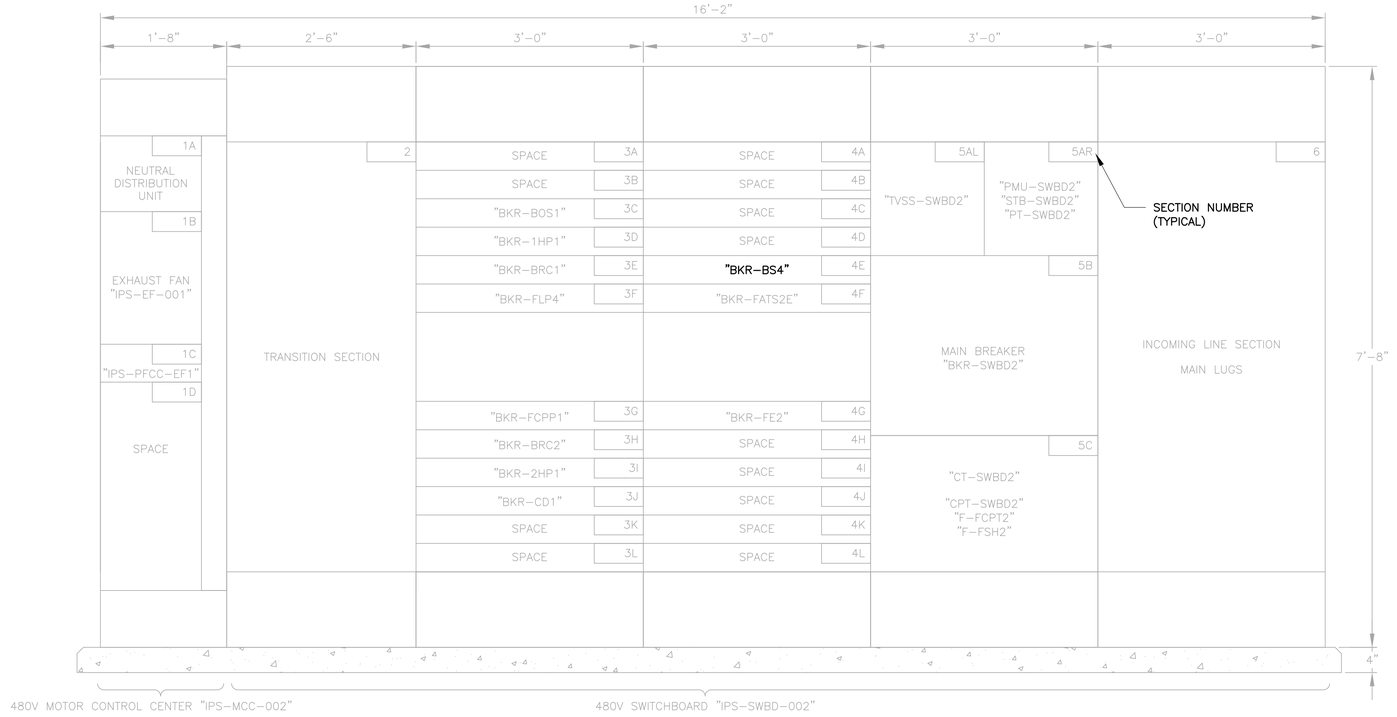
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS K. A. HARUTUNIAN 59181 REGISTERED PROFESSIONAL ENGINEER 2/16/2021

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED:	HEI
DRAWN:	HEI
CHECKED:	HEI
APPROVED:	HEI
SCALE:	AS SHOWN
DATE:	JUNE 2021

PROJECT No. 60593281
DRAWING No. E-06
SHEET No. 24 OF 43



HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

EQUIPMENT ELEVATION
RENOVATION

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
REGISTERED
PROFESSIONAL ENGINEER
6/16/2021

VERIFY SCALES
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0 1"
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DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-07
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 25 OF 43
DATE: JUNE 2021	

KEY NOTES:

1. PANEL "IPS-LP-02" IS A TYPE NQ PANELBOARD MANUFACTURED BY SQUARE D AND INSTALLED CIRCA 2012.
2. UPON COMPLETION OF RENOVATION ACTIVITIES, FURNISH AND INSTALL UPDATED TYPED PANEL SCHEDULE TO REFLECT MODIFICATIONS RESULTING FROM DEMOLITION/RENOVATION ACTIVITY AND/OR INVESTIGATION/VERIFICATION ACTIVITY.

CIRCUIT BREAKER PANEL SCHEDULE–"IPS-LP-02" (1)(2)

VOLTS: 120/208 AMPS: 225A BUS MAIN: 175A PHASE/WIRE: 3ø, 4W

CONDUIT/WIRE DESCRIPTION	CIRCUIT BREAKER SIZE	CKT. NO.	LOAD DESCRIPTIONS	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIONS	CKT. NO.	CIRCUIT BREAKER SIZE	CONDUIT/WIRE DESCRIPTION
	20 1P	1	SPARE	325			EAST STAIR LOWER ROOM LIGHTING BENEATH STAIRS	2	20 1P	3/4" – 2#10(P), 1#10(G)
	20 1P	3	SPARE		180		EAST STAIR LOWER ROOM CONVENIENCE RECEPTACLE BENEATH STAIRS	4	20 1P	3/4" – 2#10(P), 1#10(G)
	20 1P	5	SPARE			80	WET WELL, LOWER NETTING EGRESS LIGHTING	6	20 1P	1" – 4#8(P), 1#10(G)
	20 1P	7	SPARE	972			WET WELL, LOWER NETTING LIGHTING	8	20 1P	INCLUDEDWITHCIRCUIT6
1" – 3#8(P), 1#8(G)	30 3P	9	COMBINATION CONTACTOR DISTRIBUTION PANEL "IPS-CCDP-001"		372		SUPPLY FAN "IPS-SF-001"	10	20 1P	1" – 2#6(P), 1#10(G)
		11				320	INLET FACILITY WORKING AREA EGRESS LIGHTING	12	20 1P	3/4" – 2#8(P), 1#10(G)
		13		540			INLET FACILITY WORKING AREA RECEPTACLES ON EAST WALL	14	20 1P	3/4" – 2#10(P), 1#10(G)
1" – 3#8(P), 1#8(G)	30 3P	15	COMBINATION CONTACTOR DISTRIBUTION PANEL "IPS-CCDP-002"		540		INLET FACILITY WORKING AREA RECEPTACLES ON SOUTH WALL	16	20 1P	3/4" – 2#8(P), 1#10(G)
		17				180	INLET FACILITY WORKING AREA RECEPTACLES ON SOUTHEAST COLUMN	18	20 1P	3/4" – 2#8(P), 1#10(G)
		19		360			INLET FACILITY WORKING AREA RECEPTACLES ON NORHTWEST WALL	20	20 1P	1" – 2#6(P), 1#10(G)
3/4" – 2#10(P), 1#10(G)	20 1P	21	CONTROL POWER TO CONTROL CONTACTOR PANEL "IPS-CCDP-001"		360		INLET FACILITY WORKING AREA RECEPTACLES ON NORTHEAST WALL	22	20 1P	3/4" – 2#8(P), 1#10(G)
3/4" – 2#10(P), 1#10(G)	20 1P	23	CONTROL POWER TO CONTROL CONTACTOR PANEL "IPS-CCDP-002"			100	INLET FACILITY WORKING AREA RECEPTACLES ON NORTHWEST COLUMN	24	20 1P	1" – 2#6(P), 1#10(G)
3/4" – 2#10(P), 1#10(G)	20 1P	25	AIR BUBBLER CONTROL PANEL "IPS-CP-LIT0102"	50			IRRIGATION CONTROLLER "IPS-CP-IRGCE"	26	20 1P	1" – 2#10(P), 1#10(G)
	20 1P	27	SPARE		1200		GAS HEATER "IPS-GH-001"	28	20 1P	3/4" – 2#8(P), 1#10(G)
	20 1P	29	SPARE			1200	GAS HEATER "IPS-GH-002"	30	20 1P	3/4" – 2#8(P), 1#10(G)
	20 1P	31	SPARE				SPARE	32	100 3P	
	20 1P	33	SPARE				SPARE	34		
	20 1P	35	SPARE				SPARE	36		
	20 1P	37	SPARE				SPARE	38	20 1P	
	20 1P	39	SPARE				SPARE	40	20 1P	
	20 1P	41	SPARE				SPARE	42	20 1P	
TOTAL CONNECTED VOLT AMPS (VA)				5502	7402	6530				

CONDUIT/WIRE SCHEDULE

CONDUIT TAG	SIZE	CABLE/WIRE DESCRIPTION
IPS-BS4A-C1	1-1/2"	22 #12 (C),8 #12 (SP),4 #12 (G)
IPS-BS4A-C2	3/4"	6 #12 (C),3 #12 (G)
IPS-BS4A-C3	3/4"	4 #12 (C),2 #12 (G)
IPS-BS4A-PSH	3/4"	3 #10 (P),1 #10 (G),2 #12 (SH)
IPS-BS4B-C1	1-1/2"	22 #12 (C),8 #12 (SP),4 #12 (G)
IPS-BS4B-C2	3/4"	6 #12 (C),3 #12 (G)
IPS-BS4B-C3	3/4"	4 #12 (C),2 #12 (G)
IPS-BS4B-PSH	3/4"	3 #10 (P),1 #10 (G),2 #12 (SH)
IPS-CP-C	2"	36 #12 (C),12 #12 (SP),2 #12 (G)
IPS-CPBS4-C	2"	36 #12 (C),8 #12 (SP),1 #12 (G)
IPS-CPBS4-P	3/4"	3 #10 (P),1 #10 (G)
IPS-CPLIT102-C	3/4"	4 #12 (SP),1 #12 (G)
IPS-CPLIT102-I	3/4"	1 #16 2-CONDUCTOR TWISTED PAIR SHIELDED CABLE (I),1 #12 (G)
IPS-FCSBS4A-C	1-1/4"	16 #12 (C),8 #12 (SP),1 #12 (G)
IPS-FCSBS4B-C	1-1/4"	16 #12 (C),8 #12 (SP),1 #12 (G)
IPS-LITC102-C	3/4"	4 #12 (C),4 #12 (SP),1 #12 (G)
IPS-NSHBS4A-C	3/4"	2 #12 (C),1 #12 (G)
IPS-NSHBS4B-C	3/4"	2 #12 (C),1 #12 (G)
IPS-NSHHBS4A-C	3/4"	2 #12 (C),1 #12 (G)
IPS-NSHHBS4B-C	3/4"	2 #12 (C),1 #12 (G)
IPS-ZSBS4A-C	3/4"	2 #12 (C),1 #12 (G)
IPS-ZSBS4B-C	3/4"	2 #12 (C),1 #12 (G)

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

PANEL SCHEDULE &
CONDUIT/WIRE SCHEDULE
RENOVATION

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
REGISTERED
PROFESSIONAL ENGINEER
5/18/2021

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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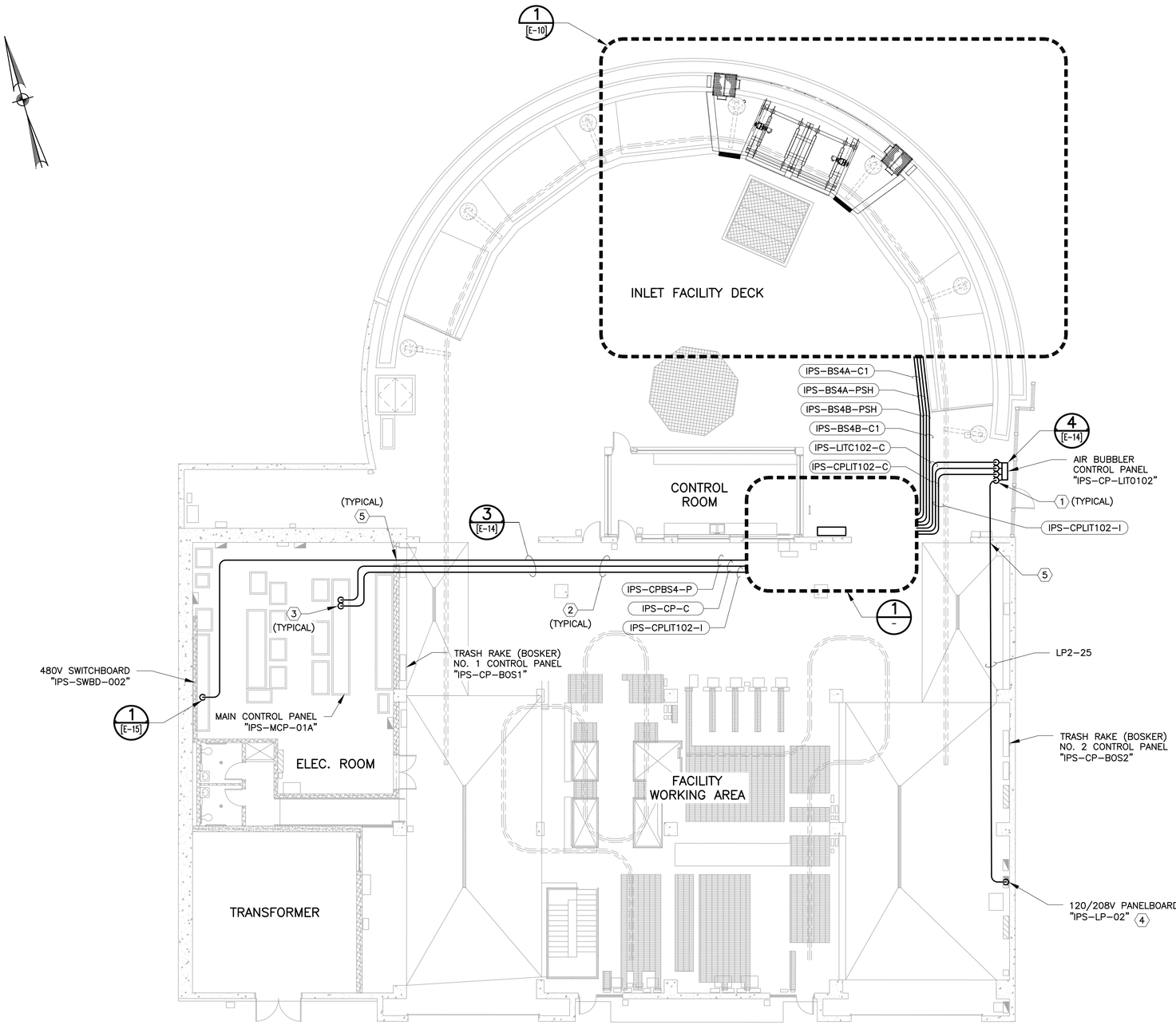
DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-08
CHECKED: HEI	
APPROVED: HEI	SHEET No. 26 OF 43
SCALE: AS SHOWN	
DATE: JUNE 2021	

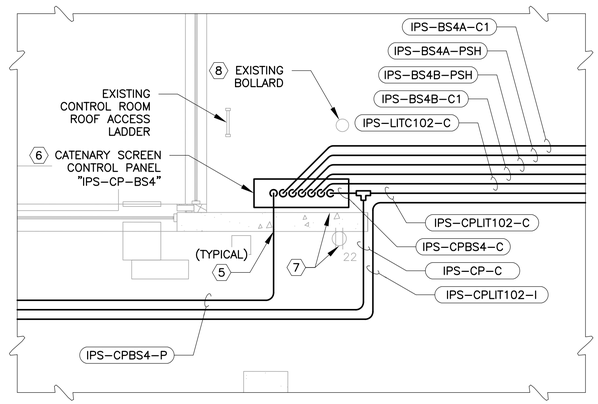


INLET PUMP STATION – LEVEL 1

SCALE: 3/32" = 1'

KEY NOTES:

1. CONDUIT/WIRE TURN UPS/DOWNS SHOWN AWAY FROM EQUIPMENT FOR CLARITY. PROPOSED CONDUIT/WIRE TURN UPS/DOWNS TO CONNECT TO TOP OR BOTTOM OF EQUIPMENT AS APPLICABLE.
2. ELEVATION AND CONFIGURATION OF CONDUIT CORRIDORS WILL VARY TO AVOID CONFLICTS AND TO FACILITATE CONNECTION TO EQUIPMENT. FIELD VERIFY LOCATION OF PROPOSED STRUCTURES, PIPES, CONDUIT, EQUIPMENT, ETC. BEFORE BEGINNING INSTALLATION AND ADJUST INSTALLATION AS REQUIRED AT NO ADDITIONAL COST TO OWNER. COORDINATE WITH PROCESS/MECHANICAL TO OPTIMIZE WORKING CLEARANCES AND TO AVOID INTERFERENCE BETWEEN SYSTEM COMPONENTS.
3. FIELD VERIFY EXACT CONDUIT ENTRANCE LOCATIONS TO ALL EQUIPMENT BEFORE COMMENCING CONDUIT INSTALLATION. ADJUST CONDUIT ENTRANCE AND ROUTING AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER. TYPICAL FOR ALL CONDUIT/WIRE TERMINATIONS.
4. FOR THE SAKE OF CLARITY, NOT ALL CONDUIT/WIRE TERMINATING AT 120/208V PANELBOARD "LP2" IS SHOWN. REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.
5. PROPOSED CONDUIT/WIRE PENETRATES STRUCTURAL WALL. CORE DRILL AND SEAL ANNULAR SPACE AROUND CONDUIT PENETRATION PER DETAIL 2/[E-15].
6. CONTRACTOR SHALL MOUNT PROPOSED MANUFACTURER-PACKAGED CATENARY SCREEN CONTROL PANEL PER DETAIL 6/[E-14]. COORDINATE FINAL SIZE AND LOCATION OF PROPOSED CONTROL PANEL WITH PROCESS/MECHANICAL AND PACKAGED SYSTEM MANUFACTURER. CONTRACTOR SHALL FIELD VERIFY EXTERIOR WALL SPACE AND LOCATION OF POTENTIAL OBSTRUCTIONS (SUCH AS THE EXISTING CONTROL ROOM ROOF ACCESS LADDER) TO ENSURE THAT ALL REQUIRED AND RECOMMENDED CLEARANCES ARE MET.
7. CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING DUPLEX CONVENIENCE RECEPTACLE LOCATED ON EXTERIOR WALL WHERE THE PROPOSED MANUFACTURER-PACKAGED CATENARY SCREEN CONTROL PANEL IS SHOWN. EXTERIOR RECEPTACLE IS FED FROM AN EXISTING DUPLEX CONVENIENCE RECEPTACLE LOCATED ON INTERIOR SIDE OF THE SAME STRUCTURAL WALL. THE INTERIOR RECEPTACLE SHALL REMAIN. CONTRACTOR SHALL DISCONNECT AND REMOVE THE CONDUIT/WIRE BETWEEN THE INTERIOR AND EXTERIOR RECEPTACLES. WHERE CONDUIT IS INACCESSIBLE, CUT CONDUIT FLUSH WITH STRUCTURE AT THE LOCATION WHERE CONDUIT TRANSITIONS BETWEEN INACCESSIBLE AND ACCESSIBLE. TIGHTLY PACK MINERAL WOOL BATT INSULATION MATERIAL WITHIN THE ABANDONED CONDUIT INTERIOR TO SERVE AS FORMING MATERIAL AND COMPLETELY FILL FINAL FOUR INCHES OF CONDUIT WITH 50 YEAR NON-SHRINK WATER-TIGHT GROUT AND FINISH TO MATCH EXISTING STRUCTURE. BOTH INTERIOR AND EXTERIOR DUPLEX CONVENIENCE RECEPTACLES ARE SERVED FROM 120/208V PANELBOARD "LP2", CIRCUIT 22.
8. CONTRACTOR SHALL COORDINATE WITH PROCESS/MECHANICAL, STRUCTURAL, AND OWNER TO RELOCATE EXISTING BOLLARD. CONTRACTOR SHALL ENSURE THAT FINAL BOLLARD LOCATION PROTECTS THE PROPOSED MANUFACTURER-PACKAGED CATENARY SCREEN CONTROL PANEL FROM HEAVY MACHINERY WITHOUT ENCROACHING UPON REQUIRED AND RECOMMENDED CLEARANCES.



PROPOSED CATENARY SCREEN CONTROL PANEL – ENLARGED PLAN

1 / -

SCALE: 1/4" = 1'

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

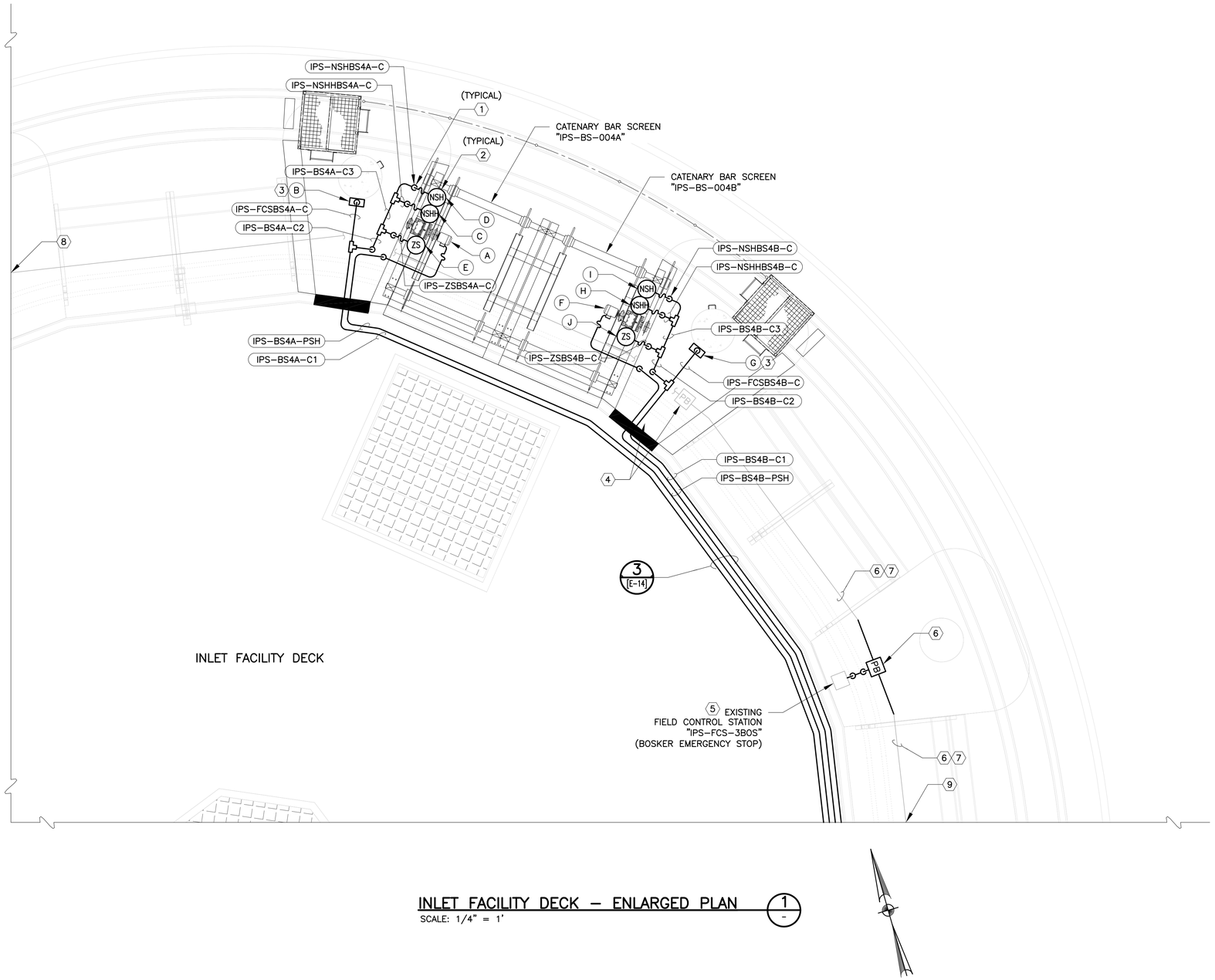
INLET PUMP STATION - LEVEL 1
POWER AND I&C PLAN
RENOVATION

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
REGISTERED
PROFESSIONAL ENGINEER
6/16/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-09
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 27 OF 43
DATE: JUNE 2021	



INLET FACILITY DECK – ENLARGED PLAN (1 / -)

SCALE: 1/4" = 1'

KEY NOTES:

1. CONDUIT/WIRE TURN UPS/DOWNS SHOWN AWAY FROM EQUIPMENT FOR CLARITY. PROPOSED CONDUIT/WIRE TURN UPS/DOWNS TO CONNECT TO TOP OR BOTTOM OF EQUIPMENT AS APPLICABLE.
2. LOCATION OF PROCESS/MECHANICAL COMPONENTS ARE APPROXIMATE. COORDINATE WITH PROCESS/MECHANICAL/STRUCTURAL FOR PLACEMENT OF PROPOSED INSTRUMENTS AND EQUIPMENT.
3. FIELD CONTROL STATION IS MOUNTED ON STRUCTURAL COLUMN SIMILAR TO DETAIL 6/[E–14]. REFER TO FIELD CONTROL STATION ELEVATION ON DRAWING NO. [I–07] FOR CONTROL STATION COMPONENTS AND ADDITIONAL INFORMATION.
4. DISCONNECT AND REMOVE EXISTING BOSKER EMERGENCY STOP FIELD CONTROL STATION LOCATED BETWEEN SCREENING BAYS 4 AND 5. CONTRACTOR SHALL PULL BACK CABLE/WIRE TO NEAREST PULLBOX (SHOWN) AND DISCONNECT AND REMOVE ALL CONDUIT, FITTINGS, SUPPORT MATERIAL, ETC. FROM FIELD CONTROL STATION TO PULLBOX. CONTRACTOR SHALL EXERCISE CAUTION TO PREVENT DAMAGE TO EXISTING FIELD CONTROL STATION AND ASSOCIATED CABLE/WIRE AS IT SHALL BE RELOCATED DURING RENOVATION ACTIVITIES. REFER TO KEYNOTES 5 AND 6 BELOW.
5. CONTRACTOR SHALL RELOCATE EXISTING BOSKER EMERGENCY STOP FIELD CONTROL STATION TO THE AREA BETWEEN SCREENING BAYS 5 AND 6. MOUNT FIELD CONTROL STATION SIMILAR TO DETAIL 4/[E–14].
6. CONTRACTOR SHALL PULL BACK ALL CABLE/WIRE ROUTED WITHIN THIS PORTION OF THE RACEWAY SYSTEM TO NEAREST PULLBOX IN ORDER TO MODIFY THE EXISTING RACEWAY SYSTEM. FURNISH AND INSTALL PROPOSED PULLBOX SIMILAR TO DETAIL 5/[E–14]. PROPOSED PULLBOX SHALL BE MINIMALLY SIZED 6" WIDE X 6" HIGH X 4" DEEP. CONTRACTOR SHALL SIZE ALL PULL BOXES PER, AND IN ACCORDANCE WITH, THE NATIONAL ELECTRICAL CODE (N.E.C.). FURNISH AND INSTALL ALL CONDUIT, FITTINGS, SUPPORT MATERIAL, ETC. REQUIRED TO RECONNECT THE EXISTING BOSKER EMERGENCY STOP FIELD CONTROL STATION IN THE NEW LOCATION. REINSTALL THE EXISTING CABLE/WIRE AND MAKE ALL FINAL TERMINATIONS.
7. IT IS ANTICIPATED THAT EACH EXISTING BOSKER EMERGENCY STOP FIELD CONTROL STATION HAS TWO (2) PAIRS OF CONTROL WIRES. ONE (1) PAIR ROUTED TO THE CONTROL PANEL FOR BOSKER NO. 1 AND ONE (1) PAIR ROUTED TO CONTROL PANEL FOR BOSKER NO. 2. SHOULD THIS BE THE CASE, THE CONTRACTOR SHALL REUSE THE CONTROL WIRES ROUTED TO TRASH RAKE (BOSKER) NO. 2 CONTROL PANEL "IPS–CP–BOS2". THE CONTRACTOR SHALL REPLACE THE CONTROL WIRES ROUTED TO TRASH RAKE (BOSKER) NO. 1 CONTROL PANEL "IPS–CP–BOS1" IN THEIR ENTIRETY. REFER TO DRAWING NO. [E–09] FOR CONTROL PANEL LOCATIONS.
8. EXISTING CONDUIT/WIRE CONTINUES TO EXISTING TRASH RAKE (BOSKER) NO. 1 CONTROL PANEL "IPS–CP–BOS1". REFER TO DRAWING NO. [E–09] FOR CONTROL PANEL LOCATION.
9. EXISTING CONDUIT/WIRE CONTINUES TO EXISTING TRASH RAKE (BOSKER) NO. 2 CONTROL PANEL "IPS–CP–BOS2". REFER TO DRAWING NO. [E–09] FOR CONTROL PANEL LOCATION.

EQUIPMENT IDENTIFICATION TABLE

MARK	DESCRIPTION
A	CATENARY SCREEN 4A MOTOR ASSEMBLY
B	CATENARY SCREEN 4A FIELD CONTROL STATION "IPS–FCS–BS4A"
C	CATENARY SCREEN 4A SHEAR PIN SWITCH
D	CATENARY SCREEN 4A HIGH TORQUE SWITCH
E	CATENARY SCREEN 4A CHAIN/SPROCKET PROXIMITY SWITCH
F	CATENARY SCREEN 4B MOTOR ASSEMBLY
G	CATENARY SCREEN 4B FIELD CONTROL STATION "IPS–FCS–BS4B"
H	CATENARY SCREEN 4B SHEAR PIN SWITCH
I	CATENARY SCREEN 4B HIGH TORQUE SWITCH
J	CATENARY SCREEN 4B CHAIN/SPROCKET PROXIMITY SWITCH

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F–2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

INLET PUMP STATION - LEVEL 1
ENLARGED POWER AND I&C PLAN
RENOVATION

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS · K. A. HARUTUNIAN · 59181 · REGISTERED PROFESSIONAL ENGINEER · 2/16/2021

VERIFY SCALES
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0 1"
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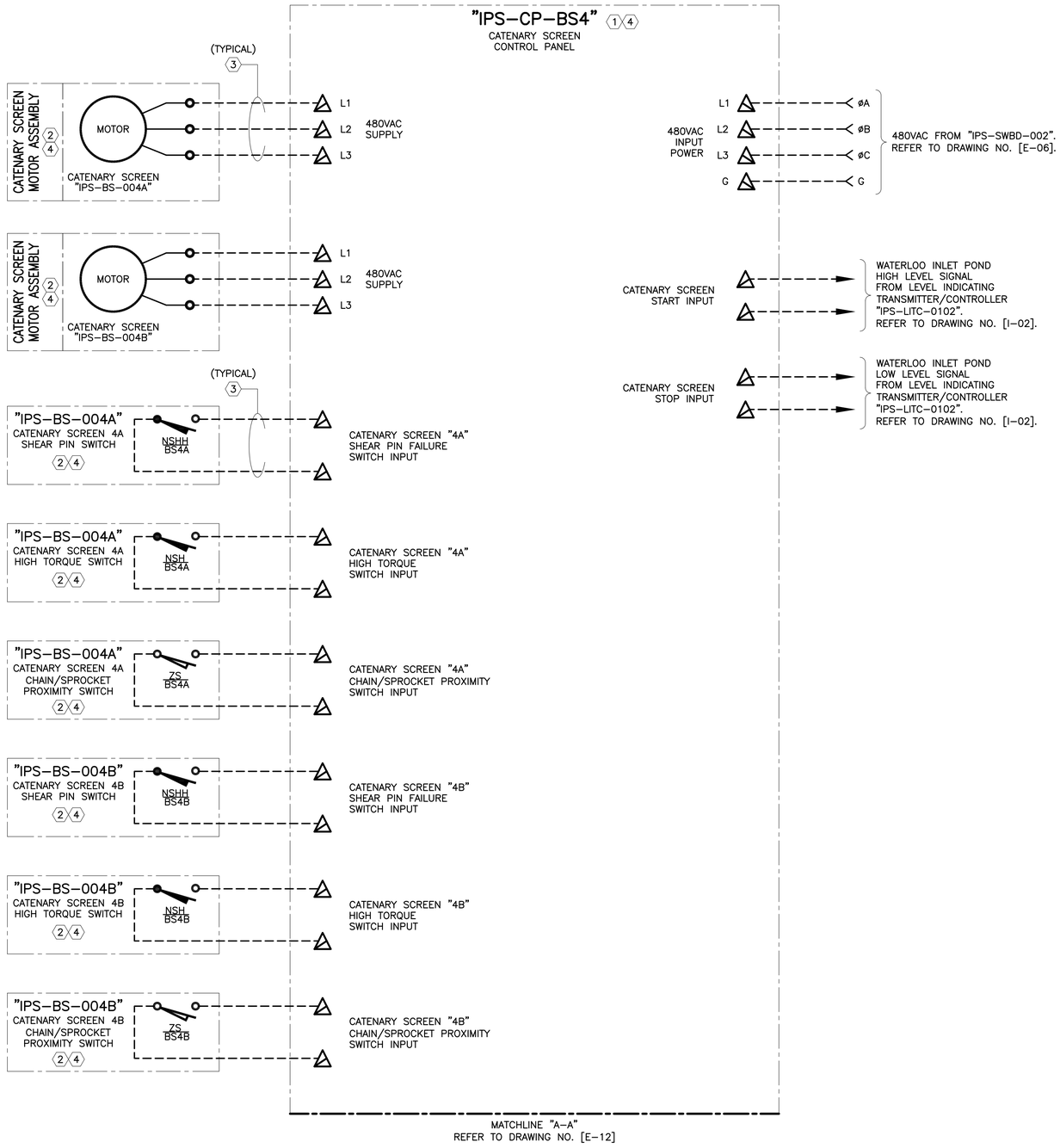
DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-10
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 28 OF 43
DATE: JUNE 2021	



KEY NOTES:

1. THE PROPOSED CONTROL PANEL IS FURNISHED BY THE EQUIPMENT MANUFACTURER. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL EQUIPMENT PACKAGED SYSTEM SUB-COMPONENTS WITH THE PROPOSED CONTROL PANEL, FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL, INSTALL THE CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
2. AN ATTEMPT HAS BEEN MADE TO IDENTIFY THE ACTUAL EQUIPMENT/DEVICE REQUIRED. THE ACTUAL EQUIPMENT/DEVICE QUANTITY MAY VARY. VERIFY QUANTITY WITH THE SPECIFICATIONS AND THE EQUIPMENT MANUFACTURER. FURNISH AND INSTALL ALL NECESSARY EQUIPMENT/DEVICE(S), ALL DEVICE(S) INTERCONNECTING CONDUIT/WIRE AND MAKE ALL FINAL CONNECTIONS PER THE SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND THE MANUFACTURER'S WIRING DIAGRAMS.
3. THE CONTRACTOR SHALL SIZE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS. COORDINATE EQUIPMENT/DEVICE WIRING REQUIREMENTS WITH THE MANUFACTURER'S WIRING DIAGRAMS AND THE SPECIFICATIONS. COORDINATE CONDUIT/WIRE CONNECTION WITH THE MANUFACTURER AND MAKE ALL FINAL CONNECTIONS. FIELD ROUTE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. COORDINATE ROUTE OF PROPOSED CONDUIT/WIRE, VERIFYING ALL POINTS OF CONNECTION PRIOR TO COMMENCING INSTALLATION.
4. FURNISHED BY THE EQUIPMENT MANUFACTURER. INSTALL AS SHOWN ON THE PLAN DRAWINGS AND PER THE RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER. REFER TO THE PROCESS EQUIPMENT SECTION OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

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8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

CATENARY BAR SCREEN
PACKAGED CONTROL PANEL "IPS-CP-BS4"
WIRING SCHEMATIC - PROPOSED (1 OF 3)

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

K. A. HARUTUNIAN 59181 STATE OF TEXAS REGISTERED PROFESSIONAL ENGINEER 12/15/2021

VERIFY SCALES
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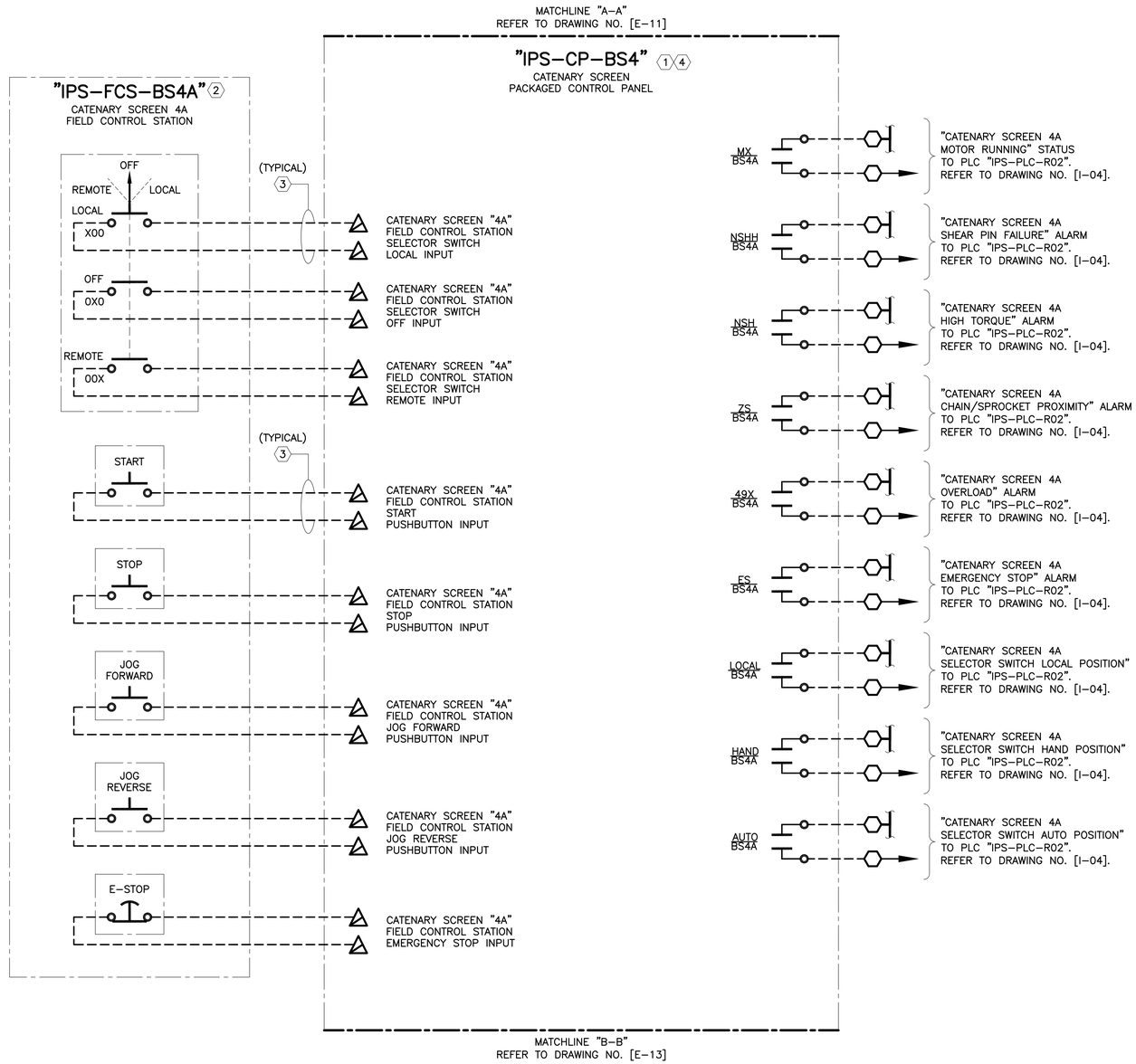
DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-11
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 29 OF 43
DATE: JUNE 2021	



KEY NOTES:

1. THE PROPOSED CONTROL PANEL IS FURNISHED BY THE EQUIPMENT MANUFACTURER. SIZE, FURNISH, AND INSTALL ALL CONDUIT/WIRE AND ALL NECESSARY RELATED HARDWARE TO INTERCONNECT ALL EQUIPMENT PACKAGED SYSTEM SUB–COMPONENTS WITH THE PROPOSED CONTROL PANEL, FURNISH AND INSTALL SUITABLE SUPPORT CHANNELS/CONCRETE EQUIPMENT PAD AS REQUIRED TO SUPPORT THE CONTROL PANEL, INSTALL THE CONTROL PANEL, AND MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. ALSO ADHERE TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND THE SPECIFICATIONS. SHOULD ADDITIONAL FIELD INTERCONNECT WIRING BE REQUIRED TO FACILITATE THE FUNCTIONAL OPERATION OF THE PACKAGED CONTROL SYSTEM, THE CONTRACTOR SHALL SIZE, FURNISH, AND INSTALL THE ADDITIONAL CONDUIT/WIRE, FIELD ROUTE THE PROPOSED CONDUIT/WIRE PER THE SPECIFICATIONS, ADD ALL NECESSARY TERMINAL BLOCKS, PLC I/O MODULES, ETC., COMPLETE WITH ALL NECESSARY WIRING TO FACILITATE A COMPLETE AND FUNCTIONAL INSTALLATION, AND MAKE ALL FINAL CONNECTIONS PER THE MANUFACTURER'S RECOMMENDATIONS, THE MANUFACTURER'S WIRING DIAGRAMS, AND PERFORM ALL ASPECTS OF THE WORK TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL FURNISH AND INSTALL FIELD CONTROL STATION AND ALL CONDUIT/WIRE REQUIRED TO INTERCONNECT PROPOSED FIELD CONTROL STATION WITH MANUFACTURER–PROVIDED CATENARY BAR SCREEN CONTROL PANEL. MAKE ALL FINAL CONNECTIONS PER THE RECOMMENDATIONS AND WIRING DIAGRAMS PROVIDED BY THE EQUIPMENT MANUFACTURER. COORDINATE FIELD CONTROL STATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO RENOVATION ACTIVITIES. REFER TO DRAWING NO. [I–07] FOR ADDITIONAL INFORMATION.
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ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

CATENARY BAR SCREEN
PACKAGED CONTROL PANEL "IPS-CP-BS4"
WIRING SCHEMATIC - PROPOSED (2 OF 3)

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
REGISTERED
PROFESSIONAL ENGINEER
2/16/2021

VERIFY SCALES
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0 1"
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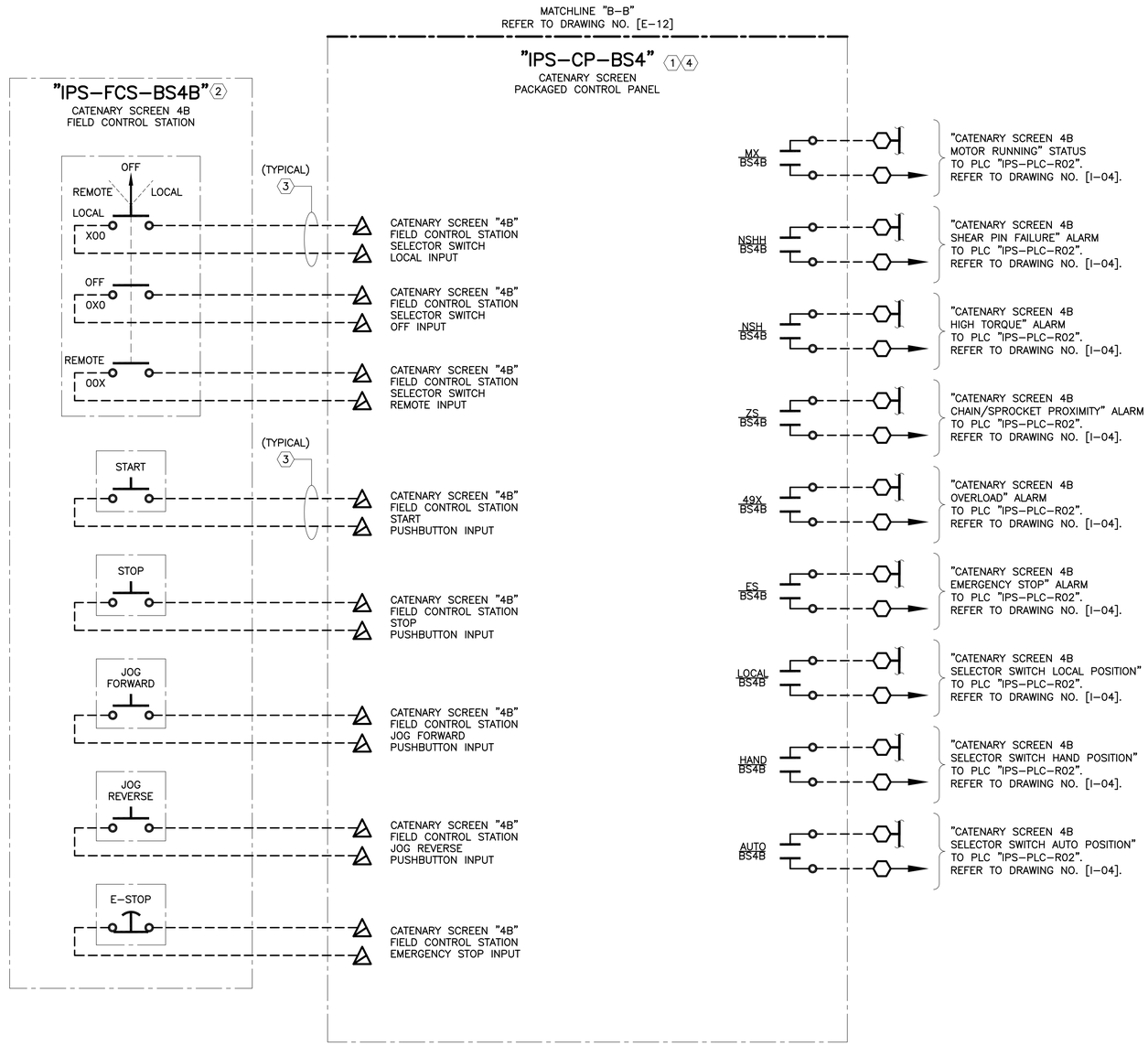
DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-12
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 30 OF 43
DATE: JUNE 2021	



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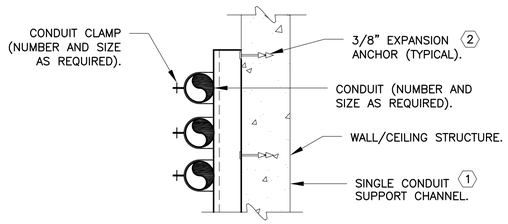
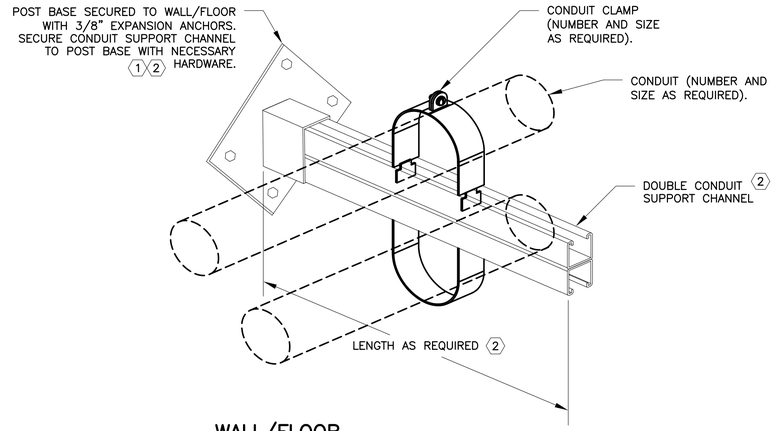
DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-13
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 31 OF 43
DATE: JUNE 2021	



WALL/CEILING/FLOOR CONDUIT SUPPORT DETAIL 1
SCALE: NTS

DETAIL NOTES:

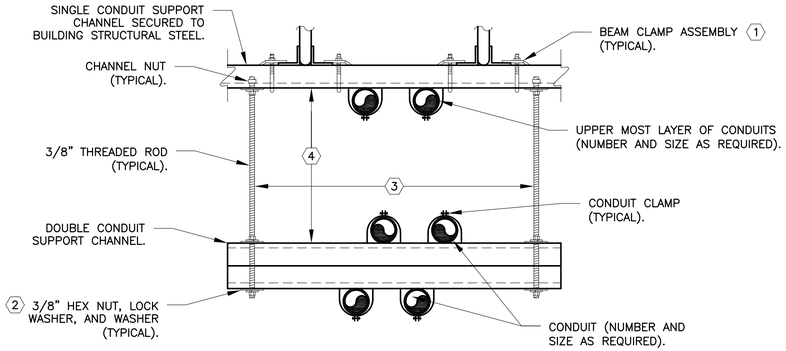
1. SINGLE CONDUIT SUPPORT CHANNEL. THE LENGTH OF CHANNEL SHALL BE AS REQUIRED.
2. THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL/ARCHITECTURAL/METAL BUILDING SYSTEM MANUFACTURER AS APPLICABLE.



WALL/FLOOR CONDUIT SUPPORT DETAIL 2
SCALE: NTS

DETAIL NOTES:

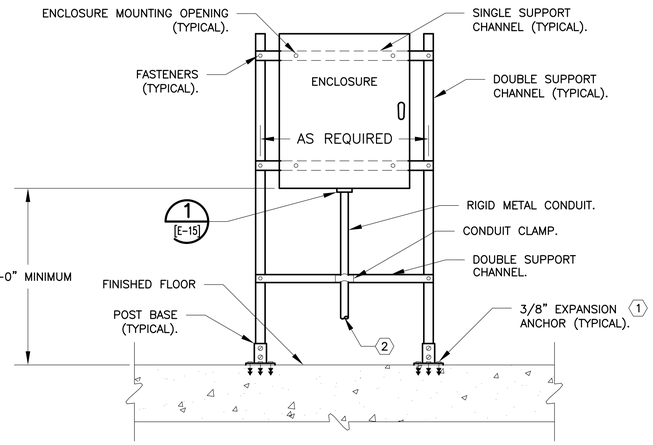
1. THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL/ARCHITECTURAL/METAL BUILDING SYSTEM MANUFACTURER AS APPLICABLE.
2. COORDINATE/CALCULATE TOTAL WEIGHT LOAD OF CONDUIT/WIRE/CABLES/ETC. AT EACH LOCATION OF SUPPORT. FURNISH AND INSTALL ADDITIONAL SUPPORT AS NECESSARY AT EACH LOCATION, IN ORDER TO MAINTAIN A MAXIMUM OF 50 PERCENT OF MANUFACTURER'S STATED WEIGHT SUPPORT CAPACITY.



CEILING CONDUIT SUPPORT DETAIL 3
SCALE: NTS

DETAIL NOTES:

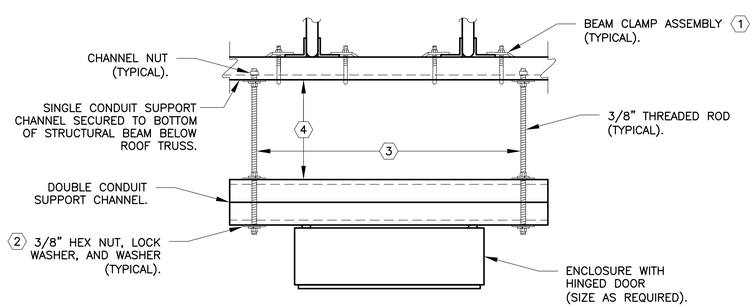
1. THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL/ARCHITECTURAL/METAL BUILDING SYSTEM MANUFACTURER AS APPLICABLE.
2. COORDINATE/CALCULATE TOTAL WEIGHT LOAD OF CONDUIT/WIRE/CABLES/ETC. AT EACH LOCATION OF SUPPORT. FURNISH AND INSTALL ADDITIONAL SUPPORT AS NECESSARY AT EACH LOCATION, IN ORDER TO MAINTAIN A MAXIMUM OF 50 PERCENT OF MANUFACTURER'S STATED WEIGHT SUPPORT CAPACITY.
3. MAINTAIN MAXIMUM DISTANCE BETWEEN ADJACENT THREADED SUPPORT RODS OF 4'-0".
4. COORDINATE SUPPORT ROD LENGTH (AND CORRESPONDING CONDUIT/WIRE SUPPORT/RACK ELEVATION) WITH PLANS. SUPPORT ROD LENGTH MAY VARY.



FRONT ELEVATION RACK MOUNTED ENCLOSURE INSTALLATION DETAIL 4
SCALE: NTS

DETAIL NOTES:

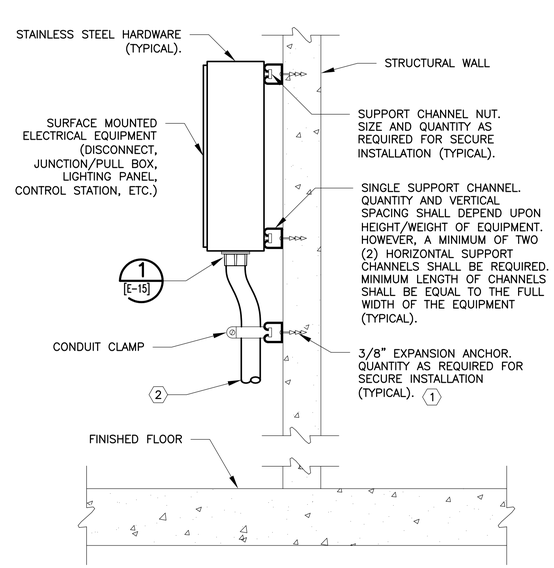
1. THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/ SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR.
2. CONDUIT/WIRE CONTINUES AS SHOWN ON PLAN DRAWINGS. FURNISH AND INSTALL CONDUIT SEAL WHERE REQUIRED ON DRAWINGS.



CEILING MOUNTED ENCLOSURE INSTALLATION DETAIL 5
SCALE: NTS

DETAIL NOTES:

1. THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL/ARCHITECTURAL/METAL BUILDING SYSTEM MANUFACTURER AS APPLICABLE.
2. COORDINATE/CALCULATE TOTAL WEIGHT LOAD OF CONDUIT/WIRE/CABLES/ETC. AT EACH LOCATION OF SUPPORT. FURNISH AND INSTALL ADDITIONAL SUPPORT AS NECESSARY AT EACH LOCATION, IN ORDER TO MAINTAIN A MAXIMUM OF 50 PERCENT OF MANUFACTURER'S STATED WEIGHT SUPPORT CAPACITY.
3. MAINTAIN MAXIMUM DISTANCE BETWEEN ADJACENT THREADED SUPPORT RODS OF 4'-0".
4. COORDINATE SUPPORT ROD LENGTH (AND CORRESPONDING CONDUIT/WIRE SUPPORT/RACK ELEVATION) WITH PLANS. SUPPORT ROD LENGTH MAY VARY.



SIDE ELEVATION SURFACE/WALL MOUNTED ELECTRICAL EQUIPMENT INSTALLATION DETAIL 6
SCALE: NTS

DETAIL NOTES:

1. THE STRUCTURE TYPE TO WHICH EQUIPMENT AND/OR SUPPORT SYSTEMS SHALL BE MOUNTED MAY VARY. THE EQUIPMENT ANCHOR TYPE SHALL CORRESPOND TO THE TYPE OF STRUCTURE TO WHICH THE EQUIPMENT AND/OR SUPPORT SYSTEMS ARE ATTACHED. THE DRAWING REFLECTS A SPECIFIC STRUCTURE TYPE WITH CORRESPONDING ANCHOR TYPE AND IS TYPICAL FOR THE STRUCTURE TYPE SHOWN. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO PRE-CAST/CAST-IN-PLACE CONCRETE WALL/FLOOR SLAB STRUCTURE TYPES, FURNISH AND INSTALL BOLT WITH EXPANSION INSERT ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO A CONCRETE MASONRY UNIT (CMU)/BRICK WALL STRUCTURE TYPE, FURNISH AND INSTALL BOLT WITH EXPANSION ANCHOR. TO ATTACH EQUIPMENT/SUPPORT SYSTEMS TO STEEL STRUCTURE TYPE, FURNISH AND INSTALL BOLTING ASSEMBLY. COORDINATE ATTACHMENT REQUIREMENTS WITH STRUCTURAL AND SPECIFICATIONS.
2. CONDUIT/WIRE CONTINUES AS SHOWN ON PLAN DRAWINGS. FURNISH AND INSTALL CONDUIT SEAL WHERE REQUIRED ON DRAWINGS.

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
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AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

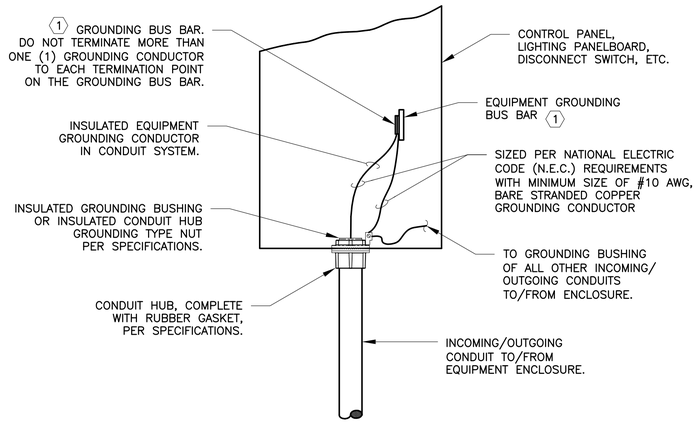
TYPICAL ELECTRICAL DETAILS
(SHEET 1 OF 2)

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
REGISTERED
PROFESSIONAL ENGINEER
6/16/2021

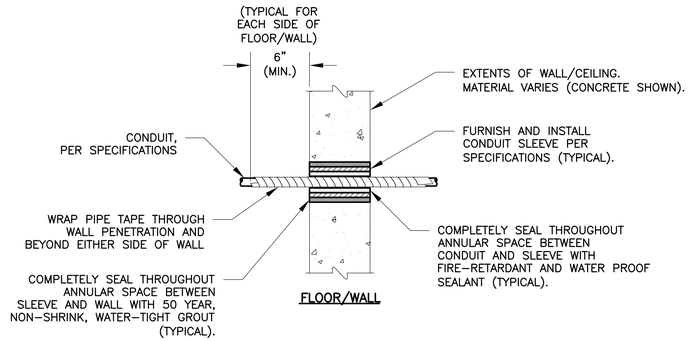
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-14
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 32 OF 43
DATE: JUNE 2021	



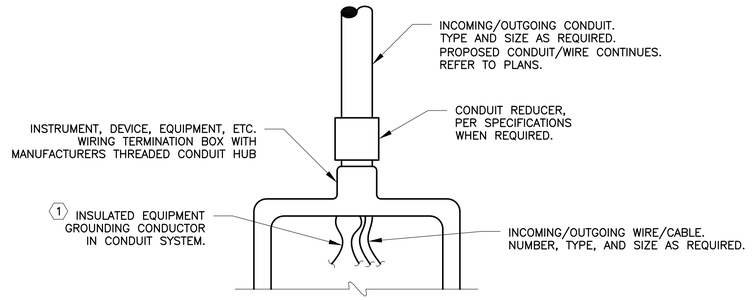
CONDUIT ENTRANCE TO WALL/RACK MOUNTED EQUIPMENT DETAIL 1

SCALE: NTS



FLOOR/WALL CONDUIT PENETRATION DETAIL 2

SCALE: NTS



CONDUIT REDUCER INSTALLATION DETAIL 3

SCALE: NTS

DETAIL NOTES:

1. GROUND BUS BAR LOCATION SHOWN FOR ILLUSTRATION ONLY AND MAY NOT NECESSARILY BE LOCATED IN EXACT LOCATION SHOWN. CONTRACTOR SHALL FURNISH AND INSTALL SUFFICIENT LENGTH OF ALL GROUNDING CONDUCTORS TO ROUTE THROUGH DESIGNATED WIRING AREAS OF EQUIPMENT TO/FROM ACTUAL LOCATION OF EQUIPMENT GROUND BUS BAR.

DETAIL NOTES:

1. BOND CONDUIT SYSTEM INSULATED GROUNDING CONDUCTOR TO WIRING TERMINATION BOX BY MEANS OF GROUND BUS BAR/TERMINATION BLOCK/LUG FURNISHED IN WIRING TERMINATION BOX.

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REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

TYPICAL ELECTRICAL DETAILS
(SHEET 2 OF 2)

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
REGISTERED
PROFESSIONAL ENGINEER
6/16/2021

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. E-15
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 33 OF 43
DATE: JUNE 2021	

WIRING AND TERMINAL DEVICE LEGEND

DEVICE WIRING TERMINAL

TERMINAL BLOCK LOCATED IN APPLICABLE 480V MOTOR CONTROL CENTER/SWITCHBOARD/POWER DISTRIBUTION PANEL. ANY DEVICE SHOWN WITH DEVICE WIRING TERMINALS CONNECTED DIRECTLY TO THESE SYMBOLS WITH SOLID LINES IS ALSO LOCATED IN RESPECTIVE 480V EQUIPMENT.

TERMINAL BLOCK LOCATED IN MAIN CONTROL PANEL. ANY DEVICE SHOWN WITH DEVICE WIRING TERMINALS CONNECTED DIRECTLY TO THESE SYMBOLS WITH SOLID LINES IS ALSO LOCATED IN RESPECTIVE MAIN CONTROL PANEL.

TERMINAL BLOCK LOCATED IN THE FIELD OR FIELD MOUNTED ENCLOSURE, AS APPLICABLE. ANY DEVICE SHOWN WITH DEVICE WIRING TERMINALS CONNECTED DIRECTLY TO THESE SYMBOLS WITH SOLID LINES IS ALSO LOCATED IN THE SAME DEVICE.

WIRING BETWEEN PANELS OR WIRING TO A FIELD MOUNTED DEVICE.

INSTRUMENT LOOP WIRING SCHEMATIC SYMBOLS

INSTRUMENT RELAY CONTACT
SPDT (FORM C) CONTACT

2–CONDUCTOR SHIELDED CABLE

4–20 mADC ANALOG OUTPUT

INSTRUMENT–POWERED
INSTRUMENT ANALOG OUTPUT

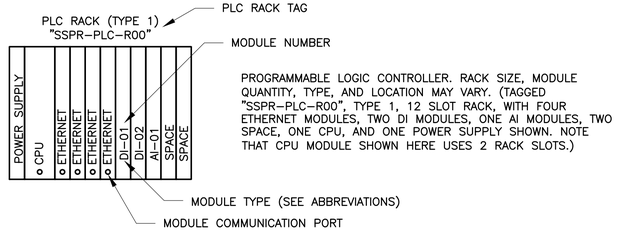
4–20 mADC ANALOG OUTPUT

LOOP–POWERED
INSTRUMENT ANALOG OUTPUT

4–20 mADC ANALOG INPUT

INSTRUMENT ANALOG INPUT

CONTROL SYSTEM ARCHITECTURE SYMBOLS



PROGRAMMABLE LOGIC CONTROLLER. RACK SIZE, MODULE QUANTITY, TYPE, AND LOCATION MAY VARY. (TAGGED "SSPR–PLC–R00", TYPE 1, 12 SLOT RACK, WITH FOUR ETHERNET MODULES, TWO DI MODULES, ONE AI MODULES, TWO SPACE, ONE CPU, AND ONE POWER SUPPLY SHOWN. NOTE THAT CPU MODULE SHOWN HERE USES 2 RACK SLOTS.)

CONTROL SYSTEM ARCHITECTURE SYMBOLS

FIBER OPTIC ETHERNET CABLE

COPPER ETHERNET CABLE

LOOSE TUBE FIBER OPTIC CABLE

VIDEO SIGNAL CABLE

RS–485 CABLE

REMOTE I/O CABLE

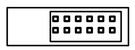
REMOTE I/O TAP

REMOTE I/O TERMINATOR

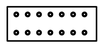
SERVER COMPUTER

OPERATOR INTERFACE UNIT, TYPE AS SHOWN (TYPE 2 SHOWN)

ETHERNET SWITCH "IPS–ESWB–01A" (TYPE 1)



ETHERNET SWITCH, TYPE AS SHOWN (TYPE 1 SHOWN, TAGGED "IPS–ESWB–01A"). SYMBOL NOT INTENDED TO SHOW ALL PORTS



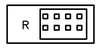
COPPER PATCH PANEL FOR TERMINATION OF COPPER ETHERNET CABLE. SYMBOL NOT INTENDED TO SHOW ALL PORTS.

MODULE/PORT (TYPICAL)

SCADA SYSTEM DATA RECEPTACLE/OUTLET
(FOUR MODULES/PORTS SHOWN)

PRINTER

ROUTER "IPS–R–001"



ROUTER (TAGGED "IPS–R–001"). SYMBOL NOT INTENDED TO SHOW ALL PORTS

TELEPHONE JUNCTION BOX. SYMBOL NOT INTENDED TO SHOW ALL PORTS

PLC ABBREVIATIONS AND LETTER SYMBOLS

SYMBOL	DESCRIPTION
CPU	CENTRAL PROCESSING UNIT
DI	DISCRETE INPUT MODULE
DO	DISCRETE OUTPUT MODULE
AI	ANALOG INPUT PLC MODULE
AO	ANALOG OUTPUT PLC MODULE
POWER SUPPLY	POWER SUPPLY
ETHERNET	NETWORK INTERFACE MODULE
SPACE	UNOCCUPIED SPACE (FOR FUTURE USE)
RIO	REMOTE INPUT/OUTPUT
TBD	TO BE DETERMINED

GENERAL NOTES FOR ALL INSTRUMENTATION AND CONTROL SYSTEM DRAWINGS

THE GENERAL NOTES SHOWN ON THE ELECTRICAL GENERAL NOTES DRAWING ALSO APPLY TO ALL OF THE INSTRUMENTATION AND CONTROL SYSTEM DRAWINGS.

HARUTUNIAN ENGINEERING INCORPORATED
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AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

INSTRUMENTATION & CONTROLS
SYMBOLS LEGEND

AECOM
AECOM TECHNICAL SERVICES INC.
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AUSTIN, TEXAS 78729
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TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
REGISTERED
PROFESSIONAL ENGINEER
5/16/2021

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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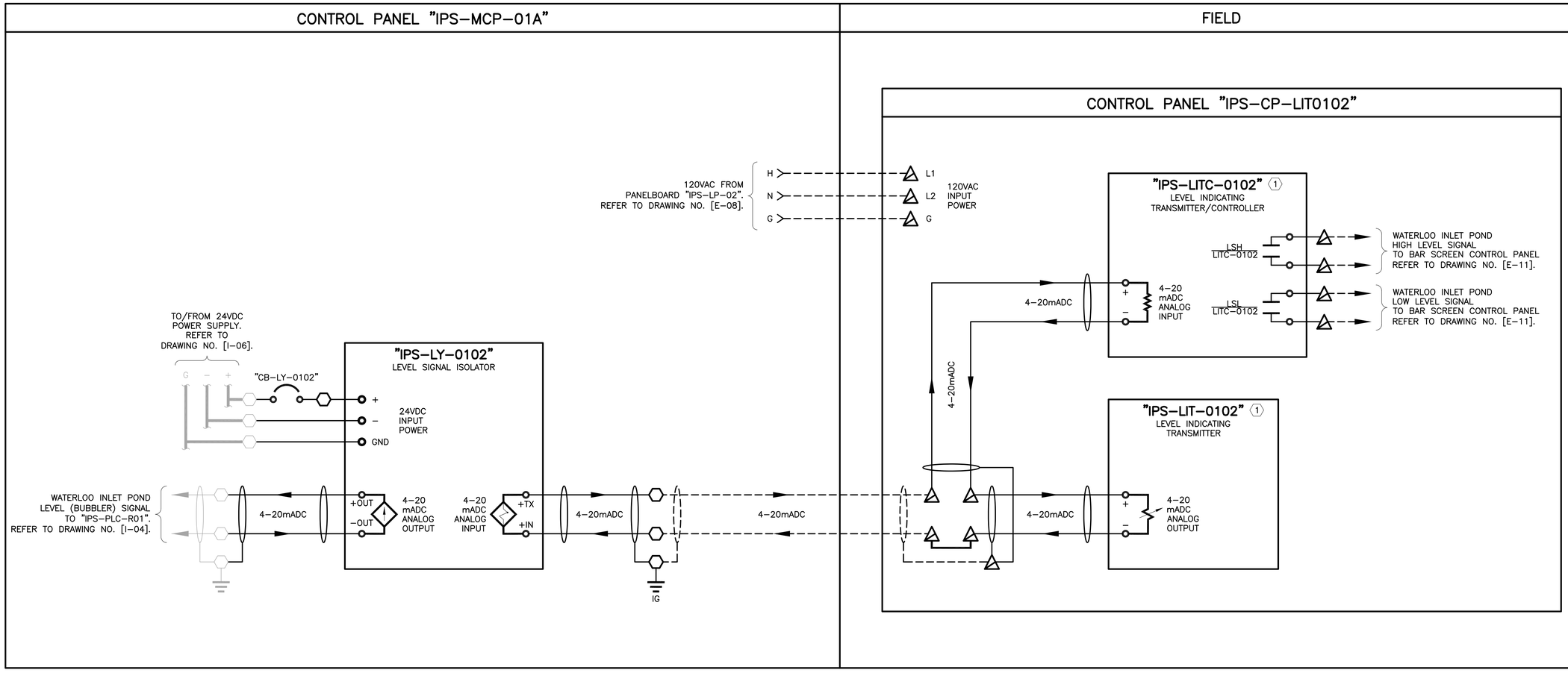
DESIGNED: HEI
DRAWN: HEI
CHECKED: HEI
APPROVED: HEI
SCALE: AS SHOWN
DATE: JUNE 2021

PROJECT No. 60593281
DRAWING No. I-01
SHEET No. 34 OF 43



WATERLOO INLET POND LEVEL (BUBBLER) – INSTRUMENT WIRING SCHEMATIC

SCALE: NTS

KEY NOTES:

1. TRANSMITTER AND INDICATING TRANSMITTER/CONTROLLER LOCATED WITHIN CONTROL PANEL "IPS–CP–LIT0102". REFER TO DRAWING NO. [E–09] FOR CONTROL PANEL LOCATION.

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WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

LEVEL INDICATING TRANSMITTER
INSTRUMENT WIRING SCHEMATIC - PROPOSED

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AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

K. A. HARUTUNIAN 59181 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS 5/6/2021

VERIFY SCALES
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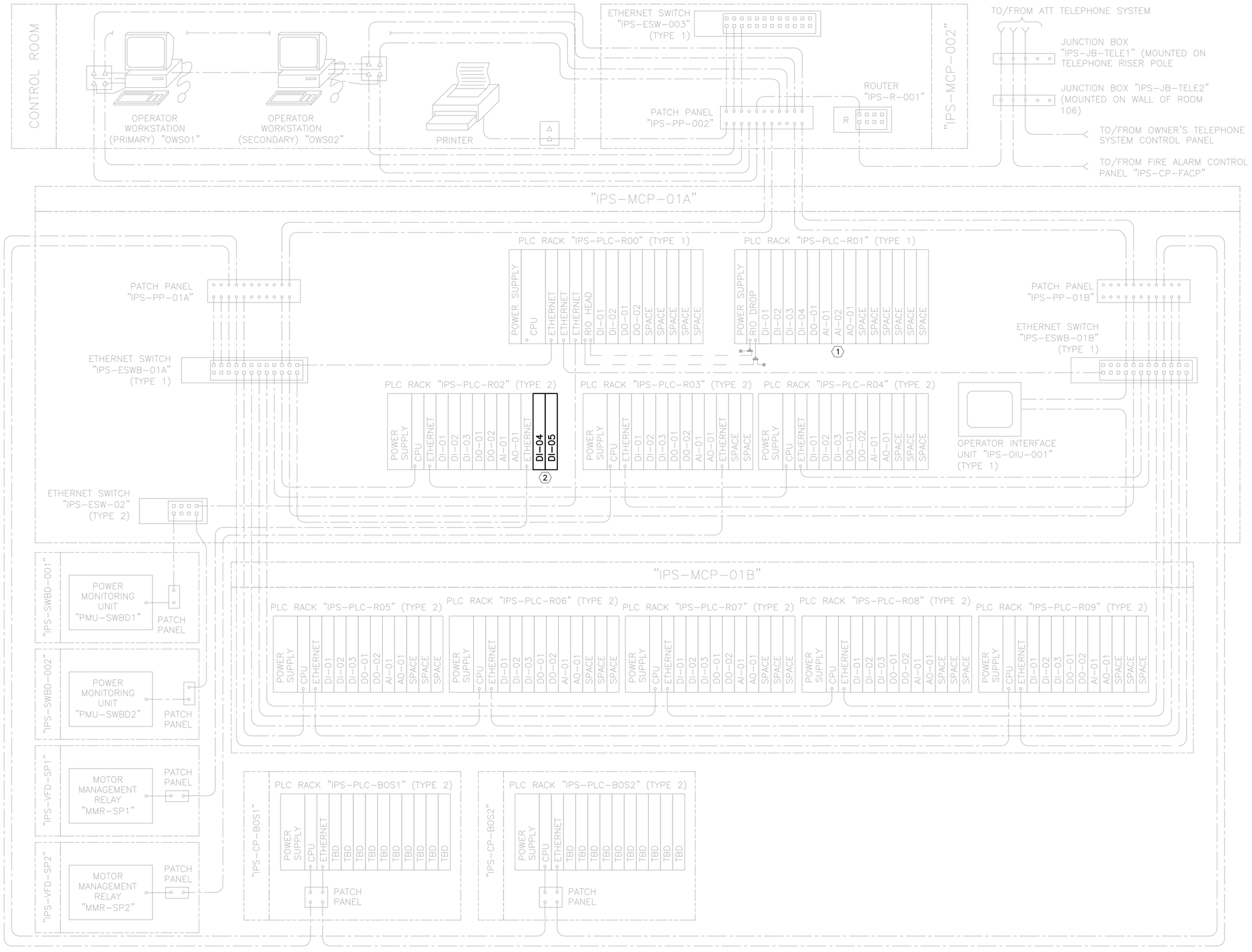
DESIGNED: HEI
DRAWN: HEI
CHECKED: HEI
APPROVED: HEI
SCALE: AS SHOWN
DATE: JUNE 2021

PROJECT No. 60593281
DRAWING No. I-02
SHEET No. 35 OF 43



KEY NOTES:

1. TERMINATE PROPOSED CABLE/WIRE TO EXISTING I/O CARDS. REFER TO DRAWING NO. [I-04] FOR ADDITIONAL INFORMATION.
2. FURNISH AND INSTALL PROPOSED I/O CARDS AND MAKE ALL FINAL TERMINATIONS. REFER TO DRAWING NO. [I-04] FOR ADDITIONAL INFORMATION.

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REV	DATE	DESCRIPTION	APPROVED

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WALLER CREEK INLET CATENARY PILOT
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PLC NETWORK ARCHITECTURE RENOVATION

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

SHANT HARUTUNIAN 87735 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS 5/18/2021

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
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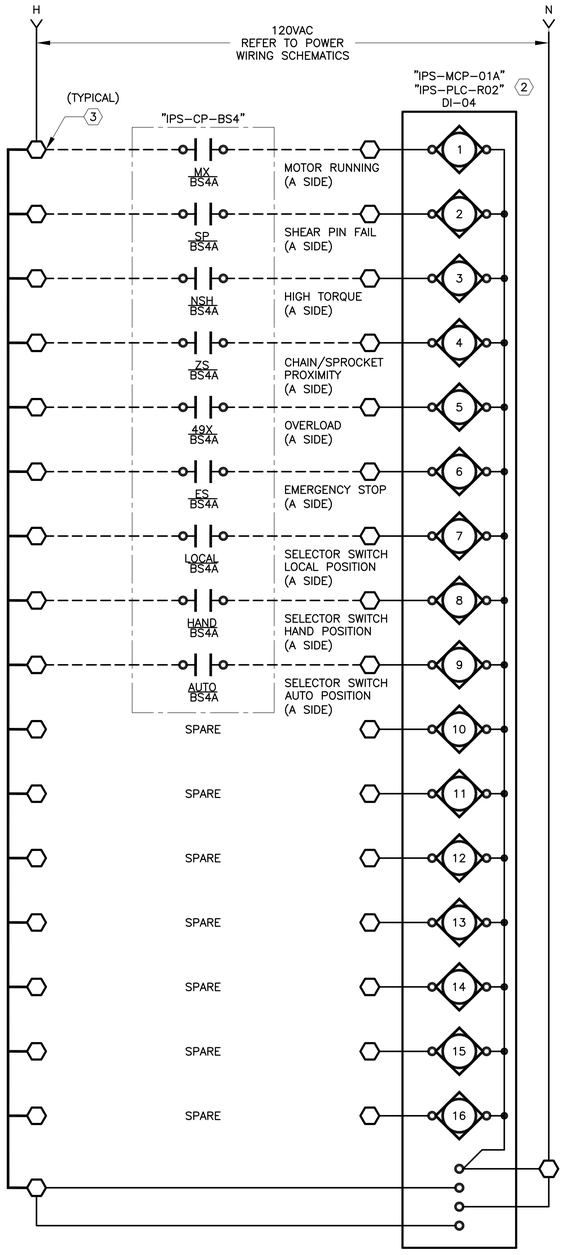
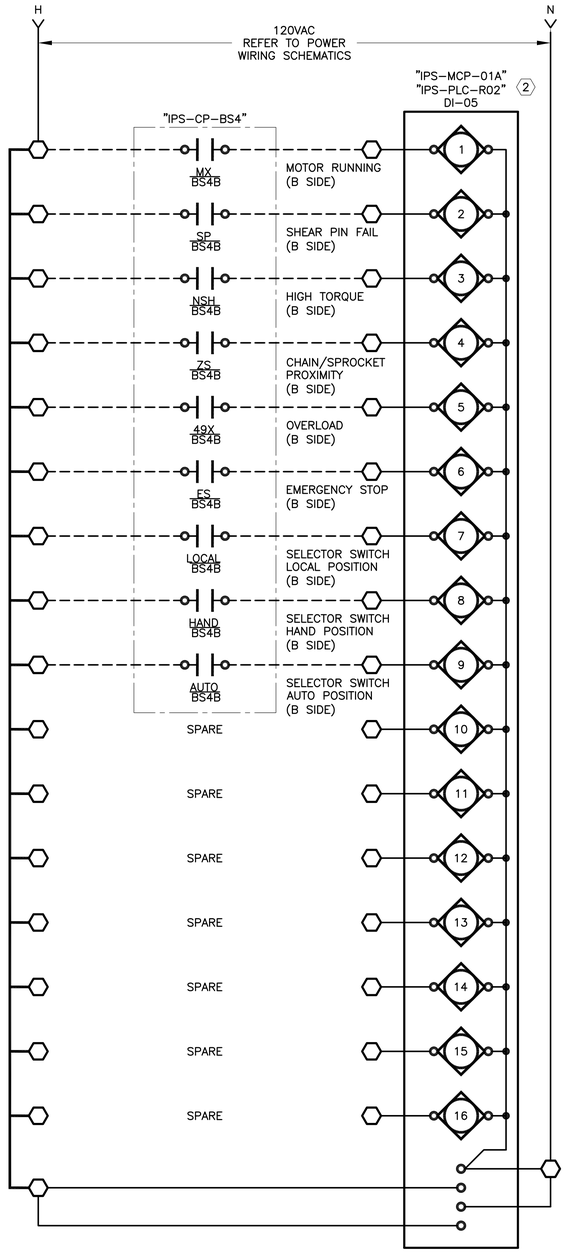
DESIGNED: HEI
DRAWN: HEI
CHECKED: HEI
APPROVED: HEI
SCALE: AS SHOWN
DATE: JUNE 2021

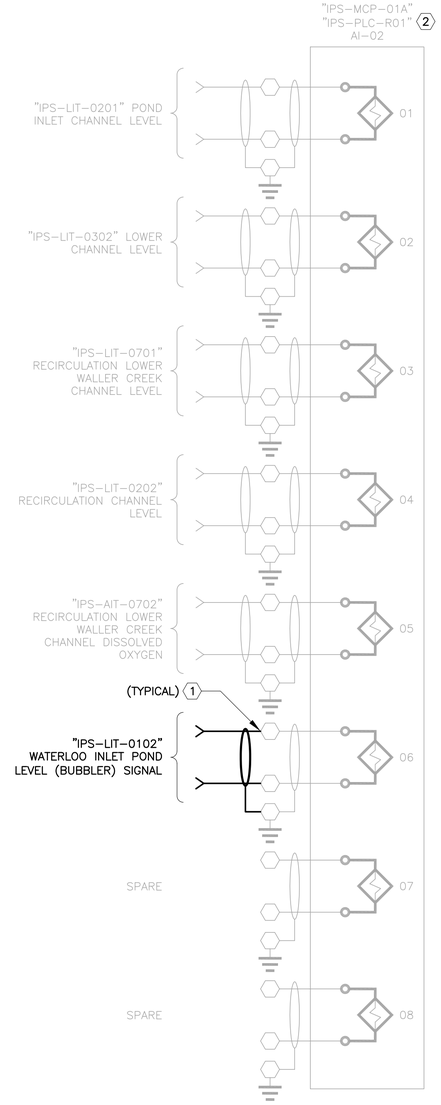
PROJECT No. 60593281
DRAWING No. I-03
SHEET No. 36 OF 43



PLC DISCRETE INPUT MODULE
WIRING SCHEMATIC
SCALE: NTS



PLC DISCRETE INPUT MODULE
WIRING SCHEMATIC
SCALE: NTS



PLC ANALOG INPUT MODULE
WIRING SCHEMATIC
SCALE: NTS

KEY NOTES:

1. TERMINATE PROPOSED WIRING TO EXISTING TERMINAL BLOCKS.
2. REFER TO DRAWING NO. [I-03] FOR PLC RACK INFORMATION.
3. FURNISH AND INSTALL TERMINAL BLOCK, TERMINAL BLOCK TAGS, BARRIERS, END ANCHORS, ETC. AS REQUIRED FOR A COMPLETE AND FUNCTIONAL INSTALLATION AND SO THAT PROPOSED CATENARY SCREEN SHALL HAVE ITS CONTROL WIRING TERMINAL BLOCK/STRIP SEGREGATED AND ISOLATED FROM TERMINAL BLOCK/STRIP OF ANY OTHER EQUIPMENT. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

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CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

PLC I/O WIRING SCHEMATIC
RENOVATION

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
SHANT HARUTUNIAN
87735
REGISTERED
PROFESSIONAL ENGINEER
5/18/2021

VERIFY SCALES
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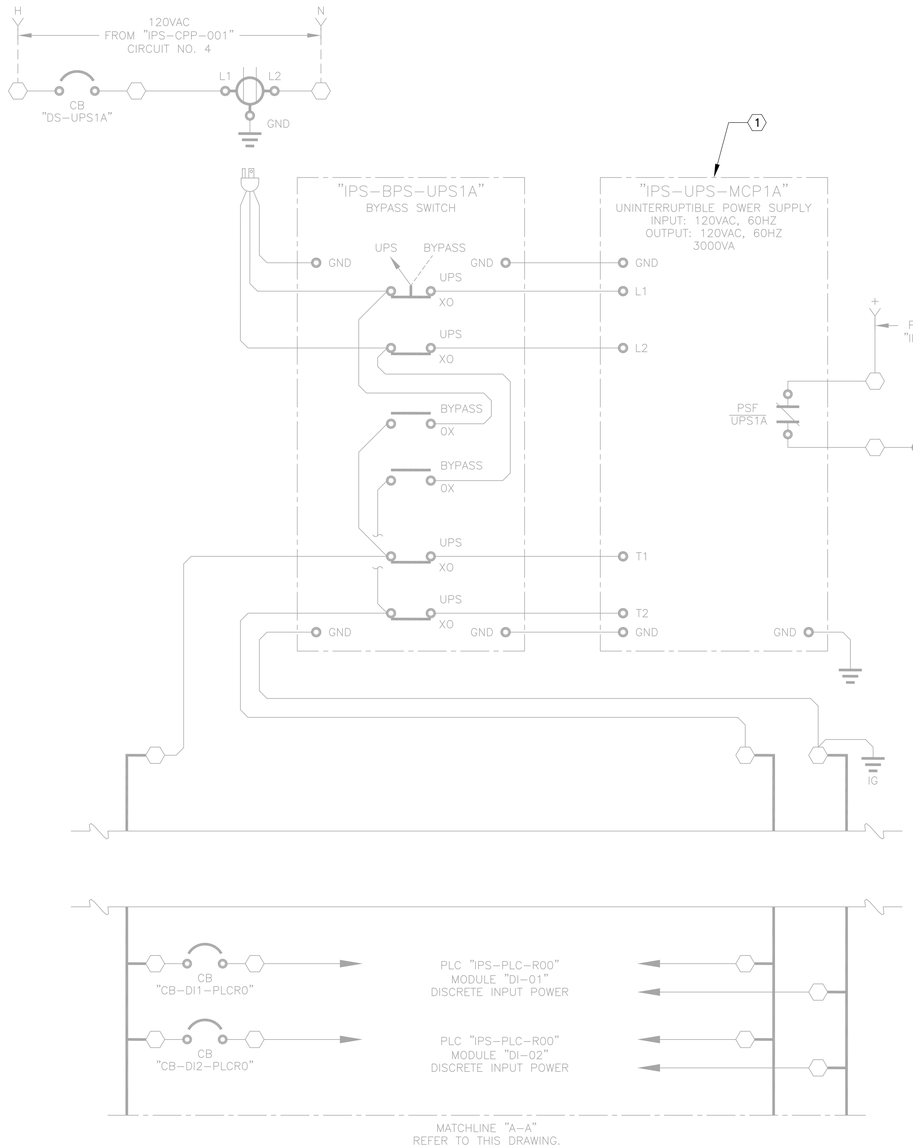
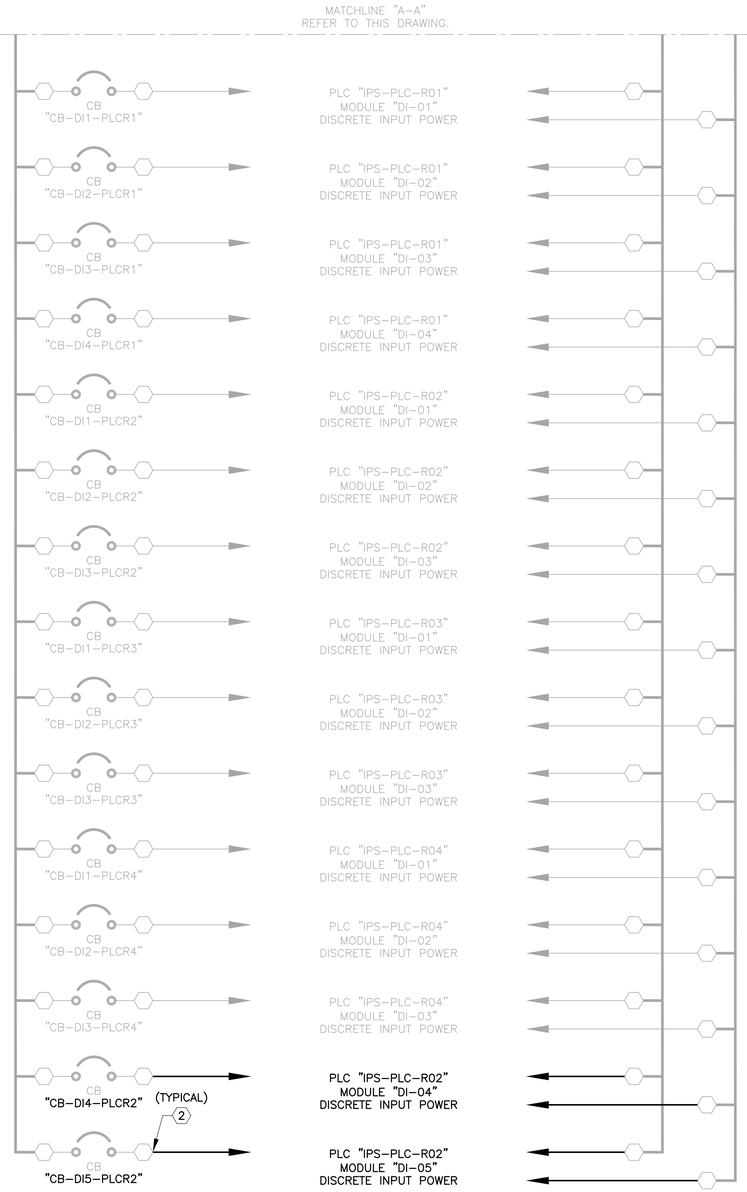
DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. I-04
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 37 OF 43
DATE: JUNE 2021	





KEY NOTES:

1. EXISTING UNINTERRUPTIBLE POWER SUPPLY "IPS-UPS-MCP1A" IS LOCATED IN SECTION 2 OF MAIN CONTROL PANEL "IPS-MCP-01A".
2. TERMINATE FIELD WIRING ON EXISTING TERMINAL BLOCKS.

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

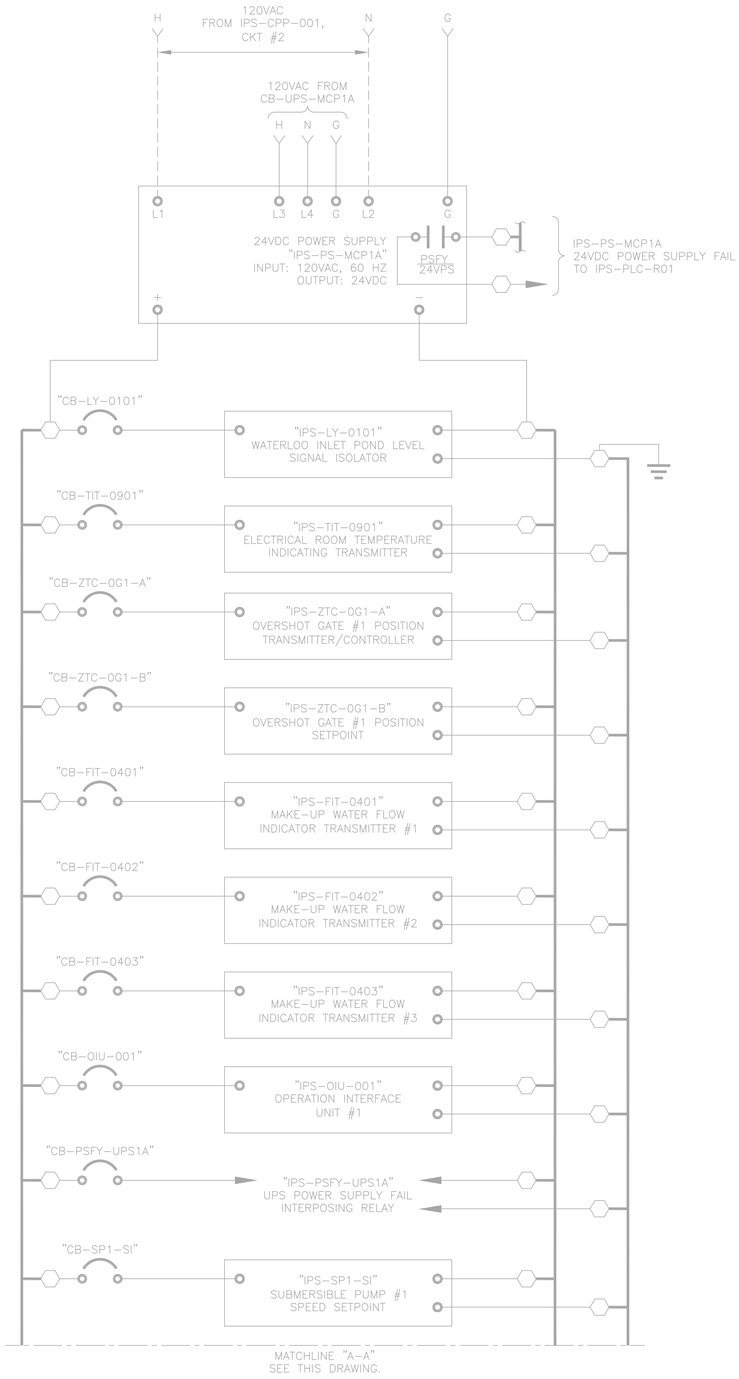
MAIN CONTROL PANEL "IPS-MCP-01A"
POWER WIRING SCHEMATICS
RENOVATION - (SHEET 1 OF 2)

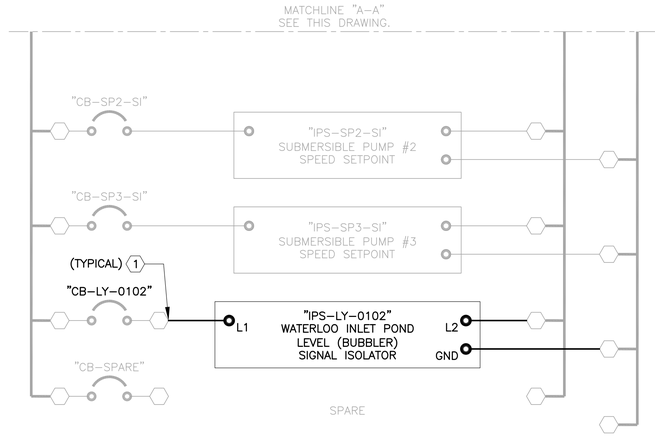
AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
REGISTERED
PROFESSIONAL ENGINEER
2/15/2021

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. I-05
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 38 OF 43
DATE: JUNE 2021	





KEY NOTES:

1. TERMINATE FIELD WIRING ON EXISTING TERMINAL BLOCKS.

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

MAIN CONTROL PANEL "IPS-MCP-01A"
POWER WIRING SCHEMATICS
RENOVATION - (SHEET 2 OF 2)

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS
K. A. HARUTUNIAN
59181
REGISTERED
PROFESSIONAL ENGINEER
2/16/2021

VERIFY SCALES
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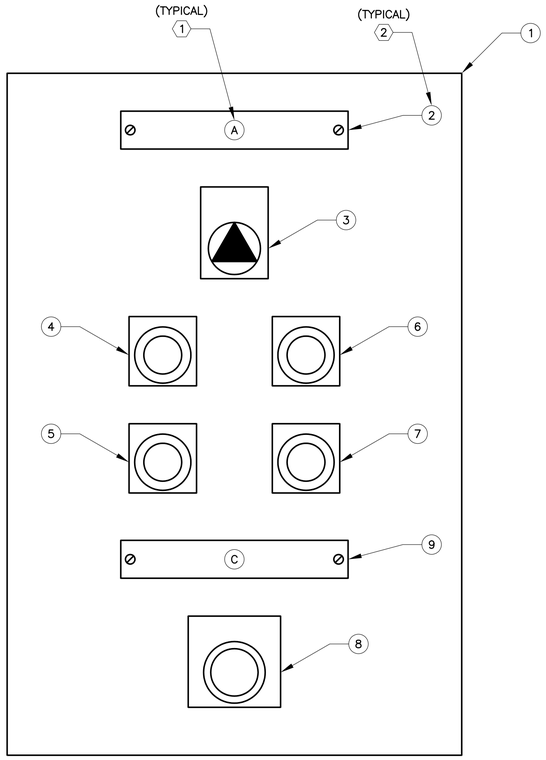
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. I-06
CHECKED: HEI	
APPROVED: HEI	
SCALE: AS SHOWN	SHEET No. 39 OF 43
DATE: JUNE 2021	

KEY NOTES:

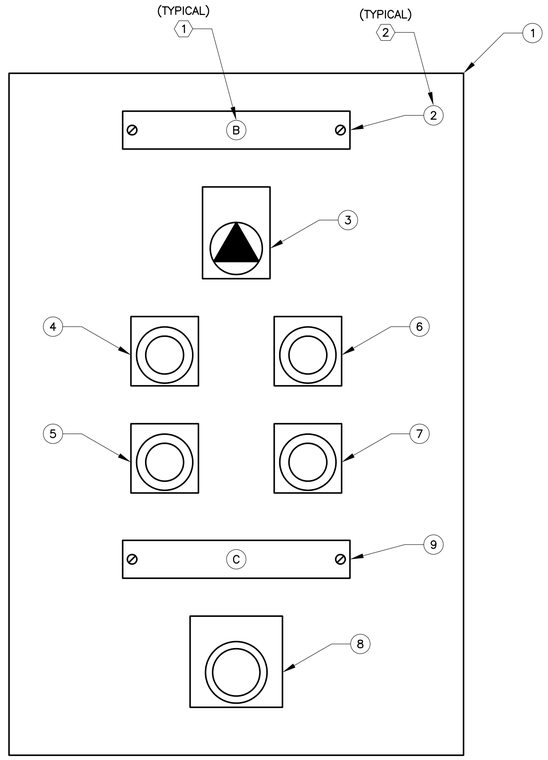
(1) LETTER IN CIRCLE CORRESPONDS TO IDENTIFICATION MARK IN FIELD CONTROL STATION/PANEL NAMEPLATE SCHEDULE ON THIS DRAWING.

(2) NUMBER IN CIRCLE CORRESPONDS TO IDENTIFICATION MARK IN FIELD CONTROL STATION/PANEL EQUIPMENT SCHEDULE ON THIS DRAWING.



FIELD CONTROL STATION "IPS-FCS-BS4A" FRONT ELEVATION (1)

SCALE: NTS



FIELD CONTROL STATION "IPS-FCS-BS4B" FRONT ELEVATION (2)

SCALE: NTS

CONTROL STATION NAMEPLATE SCHEDULE

IDENTIFICATION MARK	LINE NO.	LEGEND PLATE INSCRIPTION	LETTER SIZE (MINIMUM)
A	FIRST	"IPS-BS-004A"	3/8"
	SECOND	CONTROL STATION	1/4"
B	FIRST	"IPS-BS-004B"	3/8"
	SECOND	CONTROL STATION	1/4"
C	FIRST	EMERGENCY STOP	1/4"

CONTROL STATION/PANEL EQUIPMENT SCHEDULE

IDENTIFICATION MARK	DESCRIPTION	LEGEND PLATE INSCRIPTION	LETTER SIZE (MINIMUM)	OPERATOR OR LENS COLOR
1	FIELD CONTROL STATION ENCLOSURE PER SPECIFICATIONS.	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
2	3-PLY "WHITE-BLACK-WHITE" PHENOLIC NAMEPLATE PER SPECIFICATIONS. LETTER IN CIRCLE CORRESPONDS TO IDENTIFICATION MARK IN FIELD CONTROL STATION NAMEPLATE SCHEDULE ON THIS DRAWING.	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
3	3-POSITION SELECTOR SWITCH WITH LEGEND PLATE PER SPECIFICATIONS.	LOCAL-OFF-REMOTE	3/16"	BLACK
4	MOMENTARY PUSH-BUTTON SWITCH WITH LEGEND PLATE PER SPECIFICATIONS.	START	3/16"	BLACK
5	MOMENTARY PUSH-BUTTON SWITCH WITH LEGEND PLATE PER SPECIFICATIONS.	STOP	3/16"	BLACK
6	MOMENTARY PUSH-BUTTON SWITCH WITH LEGEND PLATE PER SPECIFICATIONS.	JOG FORWARD	3/16"	BLACK
7	MOMENTARY PUSH-BUTTON SWITCH WITH LEGEND PLATE PER SPECIFICATIONS.	JOG REVERSE	3/16"	BLACK
8	MUSHROOM-HEAD TYPE EMERGENCY STOP PUSH-BUTTON SWITCH WITH LEGEND PLATE PER SPECIFICATIONS.	E-STOP	3/16"	RED
9	3-PLY "RED-WHITE-RED" PHENOLIC NAMEPLATE PER SPECIFICATIONS. LETTER IN CIRCLE CORRESPONDS TO IDENTIFICATION MARK IN FIELD CONTROL STATION NAMEPLATE SCHEDULE ON THIS DRAWING.	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE

HARUTUNIAN ENGINEERING INCORPORATED
TEXAS FIRM REGISTRATION NUMBER F-2408
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
8100 CROSS PARK DRIVE
AUSTIN, TEXAS 78754

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK INLET CATENARY PILOT
CIP PROJECT No. 10878.003

FIELD CONTROL STATION
FRONT ELEVATIONS - PROPOSED

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

K. A. HARUTUNIAN 59181 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS 5/16/2021

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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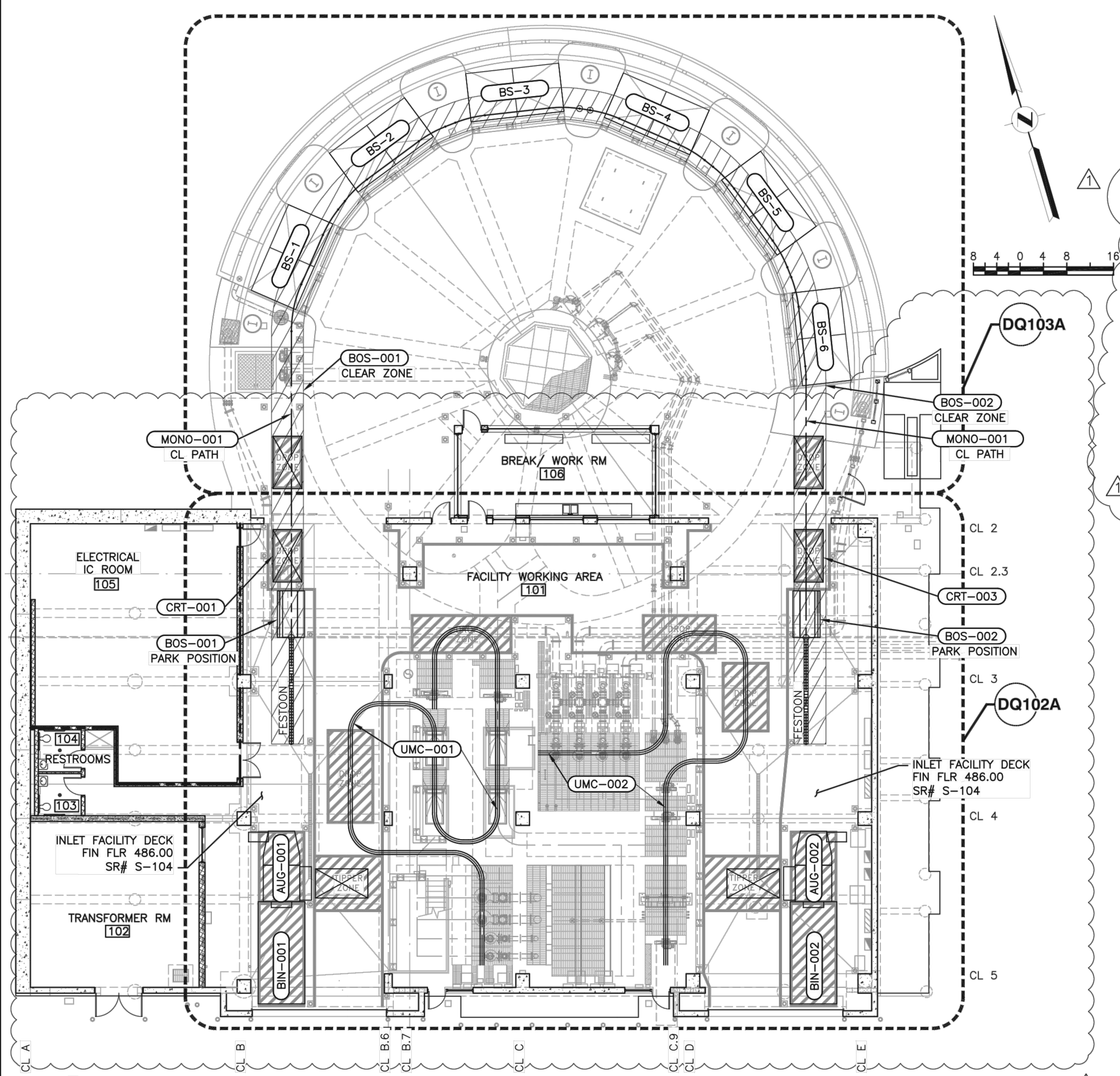
DESIGNED: HEI	PROJECT No. 60593281
DRAWN: HEI	DRAWING No. I-07
CHECKED: HEI	
APPROVED: HEI	SHEET No. 40 OF 43
SCALE: AS SHOWN	
DATE: JUNE 2021	



SCH 01 - MATERIAL HANDLING FACILITY EQUIPMENT LIST

TAG NUMBER PROJECT ID #	FACILITY ID #	EQUIP ID #	SIZE/CAPACITY	DESCRIPTION	SHT REF # / DTL REF	SPEC #
WT-	IPS-	BS-1 BS-2 BS-3 BS-4 BS-5 BS-6	16' W x 31' H - 1-¼" OPNG	BAR SCREEN (TECH DATA BELOW)	DQ101A/ DQ301A/ DQ103A	SS11171
WT-	IPS-	BOS-001	8' L x 3' W	SCREEN CLNR WEST (TECH DATA BELOW)	DQ102A/ DQ301A DQ302A/ DQ303A DQ304A/ S105A /S526	SS11171
		BOS-002 ~~BID ALT~~		SCREEN CLNR EAST (TECH DATA BELOW)		
WT-	IPS-	MONO-001	~~±351 LF~~ ±270 LF	MONORAIL TRACK ASSEMBLY	DQ102A/ DQ103A/ S105A/ S301A/ S523/ S526	SS11171
~~WT-~~	~~IPS-~~	~~BOS-001PS~~	-	~~PHOTOSENSOR PAIRS FOR SCRN CLNR DOOR CLOSURE INTERLOCK WEST~~	~~DQ103/DQ302~~	~~SS11170~~
		~~BOS-002PS~~	-	~~PHOTOSENSOR PAIRS FOR SCRN CLNR DOOR CLOSURE INTERLOCK EAST~~		
~~WT-~~	~~IPS-~~	~~BC-001~~	~~5 TON~~	~~UNDERHUNG SNGL GIRDER TRVLG BRDG CRN NORTH~~	~~DQ102/ S106/ S302/ S518~~	~~SS14630~~
		~~BC-002~~	~~5 TON~~	~~UNDERHUNG SNGL GIRDER TRVLG BRDG CRN SOUTH~~		
WT-	IPS-	UMC-001	3.0 TON	UNDERHUNG MONORAIL CRANE SYSTEM WEST	DQ104/ DQ302A/ DQ303A/ DQ304A/ DQ305A/ S-408	SS14631
WT-	IPS-	UMC-002	3.0 TON	UNDERHUNG MONORAIL CRANE SYSTEM EAST		
WT-	IPS-	AUG-001	40 HP/ 178,000 lbs THRUST	THRUST AUGER SHREDDER/COMPACTOR WEST	DQ102A/ DQ302A/ DQ303A/ DQ304A	SS11170
		AUG-002 ~~BID ALT~~	40 HP/ 178,000 lbs THRUST	THRUST AUGER SHREDDER/COMPACTOR EAST		
		BIN-001	~~29 CY~~ 20 CY	DEBRIS CTNR AT AUG-001 W/ FKLFT PCKT/ ~~CUSH'D GRND ROLLERS~~	DQ102A/ DQ302A/ DQ303A	
		BIN-002	~~29 CY~~ 20 CY	DEBRIS CTNR AT AUG-002 W/ FKLFT PCKT/ ~~CUSH'D GRND ROLLERS~~		
		BIN-003	~~29~~ CY 20 CY	DEBRIS CTNR AT AUG-001 W/ FKLFT PCKT/ ~~CUSH'D GRND ROLLERS~~ (EXTRA BIN)		
		BIN-004	~~29~~ CY 20 CY	DEBRIS CTNR AT AUG-002 W/ FKLFT PCKT/ ~~CUSH'D GRND ROLLERS~~ (EXTRA BIN)		
WT-	IPS-	CRT-001	9'L X 5'W X 4'T	DEBRIS CARTS AT DROP ZONE W2	DQ102A/ DQ103A/ DQ302A/ DQ303A/ DQ304A/ DQ305A	
WT-	IPS-	CRT-002	9'L X 5'W X 4'T	DEBRIS CARTS AT DROP ZONE W1 (EXTRA CART)		
WT-	IPS-	CRT-003	9'L X 5'W X 4'T	DEBRIS CARTS AT DROP ZONE E2		
WT-	IPS-	CRT-004	9'L X 5'W X 4'T	DEBRIS CARTS AT DROP ZONE E1 (EXTRA CART)		

* REF ELEC I&C PLAN FOR SCRN CLEANER AND AUGER CONTROL PANELS

△1

SCH 02 - INLET FACILITY DATA

INVERT OF MONORAIL SUPPORT STRUCTURE	ELEV 501.00
MAINTENANCE DECK LEVEL	ELEV 486.00
TOP OF BAR SCREEN OPENING	ELEV 484.00
100YR WSE UPSTREAM OF BAR SCREENS	ELEV 482.69
1YR WSE UPSTREAM OF BAR SCREENS	ELEV 476.86
PERMANENT WSE	ELEV 473.50
SCREEN INVERT LEVEL	ELEV 454.00
DISCHARGE HEIGHT ABOVE DECK (CART)	4'-0"
CHANNEL WIDTH	16.00'
CHANNEL DEPTH	32.00'
AREA CLASSIFICATION	NON-HAZARDOUS

NOTES:

1. REFERENCE SPECIFICATION 01030 FOR DETAILS OF ALTERANTIVE BID ITEMS.

SCH 03 - TECHNICAL DATA - SCREEN CLEANER

NUMBER OF CLEANERS	2
GRIPPER WIDTH	8 FT (NOMINAL)
DEBRIS LOAD	2,200 LBS MAX
WEIGHT OF TROLLEY AND GRIPPER	4,800 LBS MAX
LENGTH OF STRAIGHT & CURVED TRACK	~~351'~~ 270'
SCREEN CLEAN TIME (INCLUDES ALL 12 SECTIONS AND BOTH GRIPPERS OPERATIONAL)	< 30 MIN
RAKING SPEED (UP/DOWN)	± 60' /MIN
TRAVERSING SPEED (LEFT/RIGHT)	± 60' /MIN
GRIPPER OPEN/CLOSE TIME	± 8 SEC
HOIST MOTOR SIZE	15.0 HP MAX
TRAVERSING MOTOR SIZES	1 HP MAX X 2
HYDRAULIC MOTOR SIZE	2 HP
MOTOR SPEEDS	1800 RPM
MOTOR ENCLOSURE	TEFC
MOTOR INSULATION	CLASS "F"
MOTOR SUPPLY	460V/3PH/60HZ
MAIN CONTROL PANEL ENCLOSURE TYPE	NEMA 416SS

△1

SCH 04 - MATERIALS - BAR SCREENS

SCREEN BARS	GALV CARBON STL / BID ALT 316 SST
SUPPORT BEAMS	GALV CARBON STL / BID ALT 316 SST
BAR/BEAM FASTENERS	SST, GR316
BEAM FOUNDATION ANCHORS	SST, GR316
BAR SCREEN GUIDES	GALV CARBON STL / BID ALT 316 SST

SCH 05 - MATERIALS - SCREEN CLEANER

GRIPPER	HOT DIPPED GALV
HOIST CABLES	SST, GR. 316
TROLLEY/HOIST PARTS	MILD CARBON STL
TROLLEY ENCLOSURE	SST, GR. 316
TRACK	MILD CARBON STL
TRACK ASSEMBLY FASTENERS	**SST, GR. 316
BEARINGS AND BUSHINGS	BRONZE
ROLLERS	POLYAMIDE
HYDRAULIC PIPING & FITTINGS	SST, GR. 316

** PROVIDE ISOLATION OF DISSIMILIAR METALS

SCH 06 - TECHNICAL DATA - BAR SCREENS

NUMBER OF SCREEN BAYS	6
OPENING WIDTH	16'
OPENING HEIGHT	30'
NUMBER OF SCREENS SECTIONS PER SCREEN BAY	2
TOTAL BAR SCREEN SECTIONS	12
SCREEN INCLINATION FROM HORIZONTAL	75 °
BAR SIZE	3/8" X 2-1/2"
OPEN SPACE BETWEEN BARS	1-1/4"
DESIGN HEAD DIFFERENTIAL	5'

△1

SCH 07 - HYDRAULIC DATA - BAR SCREENS

BASED ON 100-YR DESIGN STORM EVENT	
TOTAL SCREEN CAPACITY - MAXIMUM	8,247 CFS
INDIVIDUAL SCREEN CAPACITY - AVERAGE	1,374.5 CFS
VELOCITY THROUGH CLEAN SCREEN - AVERAGE	4.47 FPS
HEAD LOSS @ 100% CLEAN - MAXIMUM	0.23 FEET
HEAD LOSS @ 50% CLEAN - MAXIMUM	1.66 FEET
BASED ON 1-YR DESIGN STORM EVENT	
TOTAL SCREEN CAPACITY - MAXIMUM	2,050 CFS
SCREEN CAPACITY - AVERAGE	342 CFS
VELOCITY THROUGH CLEAN SCREEN - AVERAGE	1.32 FPS
HEAD LOSS @ 100% CLEAN - MAXIMUM	0.02 FEET
HEAD LOSS @ 50% CLEAN - MAXIMUM	0.16 FEET

STATE OF TEXAS BRYAN S. MARTIN 94699 LICENSED PROFESSIONAL ENGINEER

05-15-2015

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY BRYAN S. MARTIN P.E. NO. 94699

Brown & Gay Engineers, Inc.
TBPE Registration No. F-1046

BGE
Brown & Gay Engineers, Inc.
7000 North Mopac, Suite 330 Austin, Tx 78731
Tel: 512-879-0400 ● www.browngay.com
TBPE Registration No. F-1046

Rev.	Description	Date	Appr
1	DEBRIS HANDLING MODIFICATIONS		

Designed by: B MARTIN
Drawn by: G SANCHEZ
Reviewed by: D FRENCH
Checked by: B MARTIN
File name: DQ101_DBRS_HNDL_OVERALL.DWG
Plot date:
Drawing scale: AS NOTED

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
PARKWAY 2, SUITE 150
AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

DEBRIS HANDLING EQUIP OVERALL
FIN FLR 486

△1 Sheet Reference Number:
DQ101A
Sheet of

NOTE:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY HIS/HER WORK PRIOR TO THE START OF CONSTRUCTION.

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

EXISTING DEBRIS
HANDLING EQUIPMENT OVERALL

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS CASEY G. WAUTERS 93889 LICENSED PROFESSIONAL ENGINEER 6/18/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
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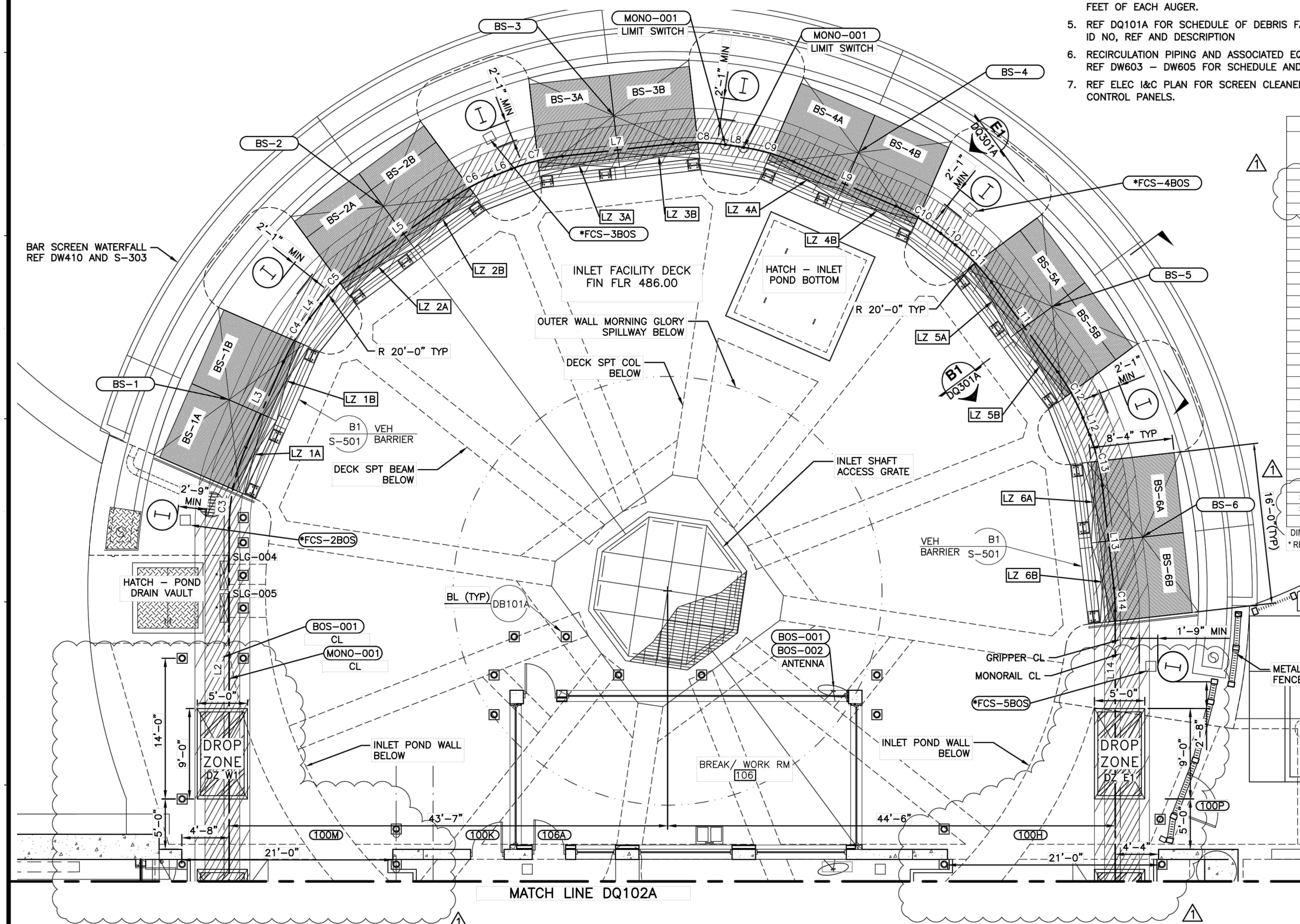
DESIGNED:	CGW
DRAWN:	AW
CHECKED:	JNB
APPROVED:	SGE
SCALE:	AS NOTED
DATE:	JUNE 2021

PROJECT No. 60593281
DRAWING No. T-01
SHEET No. 41 OF 43

NOTES:

1. REF DWGS S–105A, S–523,AND S–526 FOR MONORAIL SUPPORT FRAMING PLAN AND DETAILS
2. END CAP/LIMIT SWITCH PLACED TO PREVENT OVER TRAVEL.
3. MONORAIL SUPPORT TO BE PROVIDED AT A MAX SPACING OF 40'.
4. AUGER EMERGENCY ELEC POWER DISCONNECT WITHIN 50 FEET OF EACH AUGER.
5. REF DQ101A FOR SCHEDULE OF DEBRIS FACILITY EQUIP ID NO, REF AND DESCRIPTION
6. RECIRCULATION PIPING AND ASSOCIATED EQUIPMENT – REF DW603 – DW605 FOR SCHEDULE AND DESCRIPTION
7. REF ELEC I&C PLAN FOR SCREEN CLEANER AND AUGER CONTROL PANELS.



ID	LENGTH (FT)	CHORD (FT)	RADIUS (FT)	LINE START EASTING/NORTHING (3116### / 10072###)	LINE END EASTING/NORTHING (3116### / 10072###)
~~*L1~~	~~37'-6"~~			~~446.53 / 597.17~~	~~633.12 / 457.07~~
~~*C1~~	~~15'-8"~~	~~15'-4"~~	~~20'-0"~~	~~633.12 / 457.07~~	~~648.34 / 455.44~~
~~*C2~~	~~15'-8"~~	~~15'-4"~~	~~20'-0"~~	~~648.34 / 455.44~~	~~445.00 / 636.95~~
*L2	70'-8"			445.00 / 636.95	465.90 / 704.79
C3	8'-3"	8'-2"	20'-0"	465.90 / 704.79	469.77 / 712.01
L3	9'-3"			469.77 / 712.01	475.72 / 719.10
C4	5'-1"	5'-1"	20'-0"	475.72 / 719.10	479.47 / 722.55
L4	1'-10"			479.47 / 722.55	480.97 / 723.62
C5	5'-4"	5'-4"	20'-0"	480.97 / 723.62	485.67 / 726.09
L5	11'-0"			485.67 / 726.09	496.00 / 729.87
C6	5'-3"	5'-3"	20'-0"	496.00 / 729.87	501.09 / 731.01
L6	1'-10"			501.09 / 731.01	502.92 / 731.18
C7	5'-3"	5'-3"	20'-0"	502.92 / 731.18	508.14 / 730.96
L7	11'-0"			508.14 / 730.96	519.02 / 729.06
C8	5'-3"	5'-3"	20'-0"	519.02 / 729.06	524.00 / 727.50
L8	1'-10"			524.00 / 727.50	525.67 / 726.73
C9	5'-3"	5'-3"	20'-0"	525.67 / 726.73	530.08 / 723.94
L9	11'-1"			530.08 / 723.94	538.55 / 716.85
C10	5'-3"	5'-3"	20'-0"	538.55 / 716.85	542.08 / 713.00
L10	1'-10"			542.08 / 713.00	543.14 / 711.50
C11	5'-3"	5'-3"	20'-0"	543.14 / 711.50	545.56 / 706.88
L11	11'-0"			545.56 / 706.88	549.35 / 696.51
C12	5'-3"	5'-3"	20'-0"	549.35 / 696.51	550.49 / 691.41
L12	1'-10"			550.49 / 691.41	550.65 / 689.58
C13	5'-3"	5'-3"	20'-0"	550.65 / 689.58	550.44 / 684.37
L13	10'-3"			550.44 / 684.37	548.67 / 674.26
C14	2'-3"	2'-3"	20'-0"	548.67 / 674.26	548.16 / 672.07
*L14	62'-6"			548.16 / 672.07	530.58 / 612.13
~~*C15~~	~~15'-9"~~	~~15'-4"~~	~~20'-0"~~	~~538.39 / 638.75~~	~~528.78 / 626.83~~
~~*C16~~	~~15'-9"~~	~~15'-4"~~	~~20'-0"~~	~~528.78 / 626.83~~	~~548.16 / 672.07~~
~~*L15~~	~~37'-6"~~			~~548.16 / 672.07~~	~~530.19 / 610.80~~

MONORAIL CL LINE/CURVE TABLE

DIMENSIONS ROUNDED TO THE NEAREST INCH

* REVISION 1 - REVISED GRIPPER LAYOUT

ABBREVIATIONS:

BS BAR SCREEN
CL COLUMN LINE
DZ DROP ZONE
LZ LANDING ZONE

STATE OF TEXAS BRYAN S. MARTIN 94699 LICENSED PROFESSIONAL ENGINEER

05-15-2015

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY BRYAN S. MARTIN P.E. NO. 94699

Brown & Gay Engineers, Inc.
TBPE Registration No. F-1046

Brown & Gay Engineers, Inc.
7000 North Mopac, Suite 330 Austin, Tx 78731
Tel: 512-879-0400 • www.browngay.com
TBPE Registration No. F-1046

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Rev.	Description	Date	Appr
1	DEBRIS HANDLING MODIFICATIONS		

Designed by: B MARTIN
Drawn by: G SANCHEZ
Reviewed by: D FRENCH
Checked by: B MARTIN
File name: DQ103_DBRS_NORTH.dwg
Plot date:
Drawing scale: AS NOTED

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY
PARKWAY 2, SUITE 150
AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

DEBRIS HANDLING EQUIP NORTH

Sheet Reference Number: **DQ103A**

Sheet of

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

EXISTING DEBRIS
HANDLING PLATFORM

AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS CASEY G. WAUTERS 93889 LICENSED PROFESSIONAL ENGINEER 6/18/21

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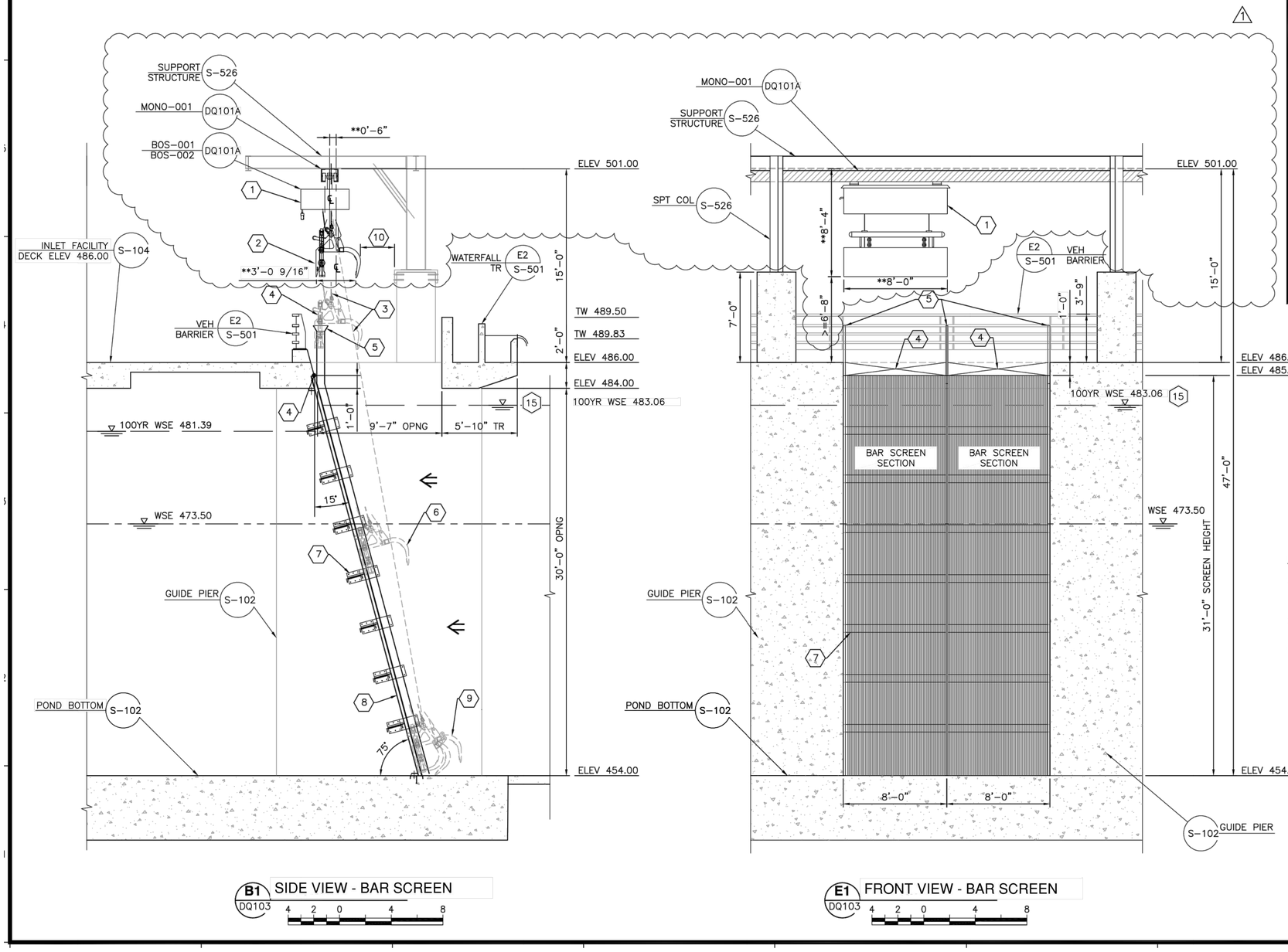
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: CGW
DRAWN: AW
CHECKED: JNB
APPROVED: SGE
SCALE: AS NOTED
DATE: JUNE 2021

PROJECT No. 60593281
DRAWING No. T-02
SHEET No. 42 OF 43

E:\60593281 WALLER CREEK CATENARY PILOT\900-WORKINGDOCS-CAD\910 CADD\20-SHEETS\T-02.DWG BY: GADHIAT DATE: 6/16/2021 9:43 AM



B1 DQ103 SIDE VIEW - BAR SCREEN

4 2 0 4 8

E1 DQ103 FRONT VIEW - BAR SCREEN

4 2 0 4 8

SHEET KEYNOTES

TROLLEY, GRIPPER, GRIPPER GUIDE, BARS, BAR SPTS AND ASSOCIATED COMPONENTS PER SS11171

1. TROLLEY REF EQUIP SCH REF DQ-101A
2. GRIPPER (TRAVEL POSTION)
3. DEWIRE ROPES
4. GRIPPER LANDING ZONE (ENGAGE POSITION) GRIPPER SHALL ENGAGE BAR SCREEN ABOVE THE 100YR WSE AND SHALL ENGAGE CLEAR OF THE VEHICULAR BARRIER
5. GRIPPER GUIDE
6. GRIPPER (SCREEN POSITION)
7. SPT BEAM MATERIAL/SIZE AND SPACING PER MFR, REF SS11171 SPT BEAMS SHOWN AS 3.5" FACING FLOW AND ARE ASSUMED SPACED EVERY 4' IN THE VERT
8. BARS
9. GRIPPER (ASCENDING POSITION)
10. GRIPPER SHALL MAINTAIN MIN CLEARANCE AS PROVIDED ON DQ103A

LEGEND

(#) PROJECT HYDRAULIC NODE REF GJ002

WATER FLOW DIR

100YR-WSE

PERM WSE

NOTES:

1. SCREEN CLEANER – REF S-105A, S-523,AND S-526 FOR MONORAIL SUPPORT FRAMING PLAN AND DETAILS
2. DEBRIS FACILITY EQUIPMENT – REF DQ101A FOR SCHEDULE AND DESCRIPTION

** DIMENSION PER SCREEN CLEANER MFR, REF SS11171

NOTE:

1. THIS IS A RECORD DRAWING FROM A PREVIOUS PROJECT. IT IS INTENDED TO PROVIDE BASIC INFORMATION ON EXISTING FACILITIES. ACTUAL FIELD CONDITIONS MAY BE DIFFERENT FROM THOSE SHOWN ON THIS DRAWING. CONTRACTOR TO FIELD VERIFY THE INSTALLED CONDITIONS IMPACTING OR IMPACTED BY HIS/HER WORK PRIOR TO THE START OF CONSTRUCTION.

Rev	Description	Date	Appr
A	DEBRIS HANDLING MODIFICATIONS		

Designed by: B MARTIN
Drawn by: G SANCHEZ
Reviewed by: D TRENCH
Checked by: B MARTIN
Plot date: DQ301_DBRS-FCLY-SECT1.dwg
Drawing scale: AS NOTED

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT

KBR/ESPEY JOINT VENTURE
4801 SOUTHWEST PARKWAY PARKWAY 2, SUITE 150 AUSTIN, TEXAS 78735

WALLER CREEK TUNNEL PROJECT
INLET FACILITY AT WATERLOO PARK

DEBRIS HANDLING EQUIP SECTIONS 1 OF 5

STATE OF TEXAS BRYAN S. MARTIN 94699 LICENSED PROFESSIONAL ENGINEER

05-15-2015

THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY BRYAN S. MARTIN P.E. NO. 94699

Brown & Gay Engineers, Inc. TBPE Registration No. F-1046

Brown & Gay Engineers, Inc.
7000 North Mopac, Suite 330 Austin, Tx 78731
Tel: 512-879-0400 • www.browngay.com
TBPE Registration No. F-1046

Sheet Reference Number: **DQ301A**
Sheet of

REV	DATE	DESCRIPTION	APPROVED

CITY OF AUSTIN
FOUNDED 1839

CITY OF AUSTIN

WALLER CREEK CANTENARY PILOT
CIP PROJECT No. 10878.003

EXISTING BAR RACK
(TYPICAL)

AECOM
AECOM TECHNICAL SERVICES INC.
9400 AMBERGLEN BOULEVARD
AUSTIN, TEXAS 78729
WWW.AECOM.COM
TBPE REG. NO. F-3580

STATE OF TEXAS CASEY G. WAUTERS 93889 LICENSED PROFESSIONAL ENGINEER 6/16/21

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF THIS BAR DOES NOT MEASURE ONE INCH, DWG IS NOT TO SCALE

DESIGNED: CGW	PROJECT No. 60593281
DRAWN: AW	DRAWING No. T-03
CHECKED: JNB	
APPROVED: SGE	
SCALE: AS NOTED	SHEET No. 43 OF 43
DATE: JUNE 2021	

E:\60593281 WALLER CREEK CATENARY PILOT\900-WORKINGDOCS-CAD\910 CADD\20-SHEETS\T-03.DWG BY: GADHIAT DATE: 6/16/2021 9:44 AM